RESEARCH ARTICLE

Evaluating Transition Pathways beyond Basic Needs: a Transdisciplinary Approach to Assessing Food Assistance

Agathe Osinski[1]

Abstract
This article applies the findings of a transdisciplinary research project conducted in 2018–2019 involving food aid beneficiaries, practitioners and academics to evaluate the current food assistance system as operationalized in several high-income countries. Using a well-being framework developed by a participatory study led by the World Bank in 2000, it analyzes the capacity of the current food assistance system – and alternative pathways – to fulfill material, bodily and social well-being, as well as security, freedom of choice and action and interpersonal justice. The results of the transdisciplinary research project show that the dominant pathway currently in place for achieving food security among individuals and households experiencing poverty insufficiently fulfils criteria related to bodily and social well-being and largely fails to provide beneficiaries with freedom of choice and action as well as interpersonal justice. Through *ex-ante* and *ex-post* interviews conducted with the participants of the transdisciplinary research project, the article proposes an exploratory analysis of the social learning and empowerment generated through the process. It finds that food aid beneficiaries, practitioners and university researchers modified their empirical policy beliefs, albeit to varying degrees. In terms of empowerment, results suggest participants' collective empowerment was strengthened, while individual empowerment waned.

Keywords Poverty · Transdisciplinarity · Social learning · Transition pathways · Food security

Introduction

As inequalities grow and poverty persists in high-income countries, so too does the demand for food assistance, a symptom of households' increasing difficulties to provide for their basic

✉ Agathe Osinski
agathe.osinski@uclouvain.be

[1] Centre for Philosophy of Law (CPDR), Université Catholique de Louvain (UCL), Louvain-la-Neuve, Belgium

nutritional needs (Gentilini 2013). Whilst the international agro-industrial system produces more food than is required to satisfy the nutritional needs of the world's population, more and more people in the rich world turn to charity and faith-based organizations to eat (Ibidem). The indicators concerning inequality, poverty and food insecurity are closely linked to sustainable development, with the first and second Sustainable Development Goals (SDGs) devoted to eradicating poverty and hunger respectively. The growing concern for addressing poverty, its causes and consequences in a multidimensional perspective posits that SDGs 1 and 2 must be considered beyond the satisfaction of basic necessities: indeed, policies and transition pathways must be considered in relation with other objectives, human rights and needs such as health (SDG 3), dignity and respect, security (SDG 16), freedom of choice and action, and fairness (SDG 10).

In this article, we consider food insecurity as a wicked problem symptomatic of persistent poverty. To address this highly complex and value-laden sustainability challenge, we propose a transdisciplinary approach to evaluating current and proposed alternative food assistance pathways. We argue that a transdisciplinary science approach, by integrating knowledge from different scientific disciplines as well as non-academic knowledge, allows to reveal the multidimensional nature of the conventional food assistance system and its impact on the well-being of its users, which is largely neglected in existing disciplinary assessments that seek to evaluate the dominant pathway. This paper thus aims to answer the following research questions:

1. To what extent does a transdisciplinary approach to evaluation allow for the assessment of transition pathways that includes dimensions of well-being and goes beyond a 'basic needs' approach?
2. When considering criteria that go 'beyond basic needs' to include dimensions of well-being, what are the desirable pathways for food security in the Global North?
3. To what extent, and in which direction, does a transdisciplinary research approach foster social learning and empowerment among participant groups?

To answer these questions, we conducted a transdisciplinary research process involving persons experiencing poverty who were former or current users of food assistance; social workers involved in the distribution of food assistance; and academic researchers hailing from a variety of disciplinary backgrounds. The objective of the workshops was to evaluate the current dominant food assistance pathway and to co-produce knowledge to assess potential alternative pathways. By viewing food insecurity as a wicked problem closely tied to poverty and social inequalities, this article contributes to providing a broader user-oriented perspective of food assistance programs and how these could be rethought to enhance dimensions that go beyond a basic needs approach.

The article is structured as follows: Section 2 describes the context of food insecurity and poverty in the global North, provides a detailed description of the current dominant pathway of food assistance and possible alternative pathways as well as evaluations of these available in the literature. Section 3 presents our theoretical background, including the concept of transdisciplinarity as a transformative epistemology for sustainability challenges and the well-being framework on which this article is based. Section 4 lists the materials and methods used for the data analysis, presented under Section 5. Section 6 discusses the findings and analyzes additional outcomes of the *Food Assistance: What Alternatives* (FAWA) project, including social learning and empowerment generated among participants. Section 7 concludes.

State of the Art

Food Insecurity and Poverty

Food insecurity is on the rise in high-income countries, with food assistance organizations reporting increasing demand in recent years. While no independent statistics are currently systematically collected on the number of food insecure households in the European Union (EU), in 2016 food banks distributed foodstuffs to 6.1 million people across the continent, marking an increase of 1.1 million since 2010 (Hebinck et al. 2018). In the same year, 7.5% of the European population was considered to be severely materially deprived, that is, they did not have access to four of nine items considered essential. Among these items, one of the three most commonly reported deprivations in 2018 was access to one meal with meat, fish, chicken or a vegetarian equivalent every other day (Eurostat).

In high-income countries, the increased demand for food assistance does not reflect a lack of supply of food products; instead, it results from problems of access due to insufficient incomes. On one hand, the economic downturn triggered by the 2008 financial crisis brought higher levels of unemployment and lower real wages. On the other hand, austerity measures and the flexibilization of labor markets have weakened social safety nets and left many households in or close to poverty. For instance, in Germany, the unemployment rate in 2018 was at a historically low level, whilst the proportion of the population turning to food banks was sharply increasing (Deutsche Welle 2019). Moreover, in nearly all countries of the European Union (EU), minimum income schemes remain significantly below at-risk-of-poverty rates (Greiss et al. 2019). Finally, conflicts beyond the EU's borders and the resulting influx of vulnerable migrant populations may also play a role in the heightened demand for food assistance. Meanwhile, as mentioned above, the agro-industrial food system currently produces more food than would be needed to cover the nutritional needs of the world population. Data suggests that the sector is a major contributor to global greenhouse gas emissions and loss of biodiversity (De Schutter 2017); moreover, approximately one third of the food produced globally is wasted or lost (Gentilini 2013).

Dominant Food Aid Pathways

Description

The dominant pathway for tackling food insecurity consists of a combination of public and private actors distributing in-kind food assistance under certain conditions. In this section, we describe an ideal-type of a *dominant pathway* as it functions in a large number of EU Member States (MS) and other countries, outlining the main institutional actors and structures, funding schemes and suppliers, private actors and the rules and conditions that are applied.

Funding and Food Supply In the EU, the Food Aid Program to the Most Deprived Persons in the Community (MDP) previously transferred agricultural food surpluses from intervention stocks to charitable organizations under the Common Agricultural Policy (CAP). The program was managed by the Directorate-General for Agriculture. A series of reforms to the CAP led to reduced volumes of food surplus and intervention stocks, paving the way for a revised form of food aid provision. The possibility of purchasing food products from the market using EU funds was introduced in 1995. In 2014, the European Fund of Aid to the Most Deprived

(FEAD) was introduced as a successor to the MDP; it allowed Member States to provide material assistance in the form of clothing, food and basic supplies to persons living in poverty for a period of six years, until 2020. The FEAD provided 3.8 billion EUR in funding during the 2014–2020 period, with EU countries contributing at least 15% of co-financing to their national programs. The purchases funded by the FEAD allow Member States to distribute clothing, food and basic products to the most vulnerable persons in their countries. This contribution varies in impact: in some countries, products purchased through the FEAD constitute a significant proportion of overall food supplies distributed through the food assistance system. For example, in Belgium, 41% of products distributed through ten regional food banks were orders purchased by the FEAD (Federation des Services Sociaux 2019).

Food assistance programs thus rely to varying degrees on FEAD products for the supply of food distributed to users. Other sources of food and funding include donations of unsold food products from food producers, retails and distributors, private funding, and small-scale subsidies – though in most Member States, public authorities do not directly fund food assistance activities in non-governmental organizations (NGOs).

Key Actors Other key actors include MS authorities at various levels of governance. At a national or sub-national level, the management authority fixes the rules and manages the fund for the country. At a local level, some authorities may be involved in the direct distribution of food products to vulnerable individuals and households or in verifying eligibility of potential. Users. Private actors include charitable organizations such as food banks, soup kitchens, social grocery stores, religious organizations, homeless shelters, and volunteers and paid staff that contribute to the collection and distribution of foodstuffs (Arcuri et al. 2016). These actors can act as front-line organizations (directly involved in the distribution of food to persons experiencing poverty) and/or serve as intermediaries for the collection, storage and distribution of food from suppliers to organizations working in the field. While the configuration of actors and their roles varies according to context, the tendency in the field of emergency food assistance is towards an increasing "complex and sophisticated system" (Ibidem).

Users To benefit from FEAD products, users must be living below the at-risk-of-poverty rate, measured as 60% of the median income (AROP60). In many countries and organizations, the same criterion is used for non-FEAD products. As discussed above, no official data is collected by public authorities on the number of users of food assistance programs: this is partly due to the difficulty of gathering such data and the administrative burden it would impose on charitable organizations. However, for some scholars, it also reflects a non-recognition of the severity of food insecurity as a policy issue (Riches and Silvasti 2014). Some estimates exist: in the rich world as a whole, an estimated 60 million people annually turned to food aid prior to the 2008 financial crisis (Gentilini 2013). Based on statistics from its Member States, the EU estimates that approximately 16 million people were helped by the FEAD in 2016. Proxy indicators, such as the rate of severe material deprivation range from maxima of 21% of the population (in Bulgaria) and 17% (in Romania and Greece) to less than 2% in some Member States, with an average of 6% for the European Union as a whole in 2018. Taking the at-risk-of-poverty indicator, which constitutes a reasonable proxy for the share of persons eligible for receiving food assistance, the rate ranges from over 23% (in countries like Latvia and Serbia) to approximately 10% (in the Czech Republic), averaging at 17% in the EU as a whole. Regarding the evolution of users in recent years, the literature highlights an increase in demand for food assistance and an expansion of the emergency food system (Arcuri et al. 2016, Dowler and Lambie Mumford 2015, Booth and

Whelan 2014). User profiles have evolved from persons historically excluded from social safety nets (homeless persons, refugees and/or migrants) to individuals and households formerly part of the middle class, whose precarious working conditions or unemployment have caused them to reach out to charitable organizations for support.

Previous Evaluations of Food Assistance Programs

Recent evaluations of the FEAD and of in-kind food assistance programs have been mainly positive. For example, the mid-term evaluation of the FEAD, published in 2019, found that food aid played an important role as emergency support for beneficiaries, while fostering an income effect (i.e. freeing up necessary financial resources for other goods/services). It also described qualitative evidence of indirect effects such as "solidarity and cohesion, greater self-esteem and a sense of belonging, prevention of social, health and humanitarian crises, leverage effects through the volunteering and commitment of thousands of civil society organizations." (FEAD Midterm Evaluation 2019). Moreover, the obligation to respect the dignity of beneficiaries was found to have been applied, particularly by partner (frontline) organizations.

In Europe, two other studies are worth noting. The first focuses on the Belgian food aid system (2016); the second is a local study conducted in Mulhouse (France). Both studies integrate a multidimensional approach to evaluating food assistance deployment. In France, the local study notes that a participatory approach to the project led to the involvement of social workers and beneficiaries in the research; however, while the former were part of the research team from the early stages of the project until publication, the latter were invited to express their opinion only on the conclusions of the report. Thus, while interviews were conducted with a number of food aid beneficiaries, their input remained largely of a consultative or extractive nature. The Belgian report, based on an action-research project conducted by the Federation of Social Services (FdSS) included data from 31 interviews with food aid beneficiaries; however, they were not involved in the planning, analysis or publication of the study.

In Ecuador, a randomized control trial (RCT) evaluation conducted in an urban context compared the impact of food distribution, vouchers and revenue increases on relieving food insecurity. The study found that all three policy instruments significantly improved the quantity and quality of food consumed, with direct food distribution favoring higher increases in calories consumed and vouchers leading to improved dietary diversity. However, food distribution was the least cost-effective solution, with food vouchers and cash transfers consuming significantly fewer resources in implementation costs ($11.46 per food transfer, compared with $3.27 and $2.99 for vouchers and cash respectively). The study concludes that while cash transfers allow for the largest improvements in welfare with the highest satisfaction expressed by users, vouchers or food transfers are most cost-effective in increasing caloric intake or dietary diversity. The evaluation therefore notes that there exists a trade-off for policymakers, who must choose between improving overall welfare or achieving specific policy objectives.

Finally, in the U.S., the Supplemental Nutrition Assistance Program (SNAPS) program was found to contribute to improving health outcomes, lowering health care costs, helping families buy adequate food, reducing poverty and stabilizing the economy during recessions. An evaluation found that the program constitutes a "critical foundation for the health and well-being of low-income Americans, lifting millions out of poverty and improving

food security" (Carlson and Keith-Jennings 2018). Another evaluation found that the relatively high non-take-up rate of eligible SNAPS users was the result of the lack of information and the time and effort required to complete and submit eligibility applications (Finkelstein and Notowidigdo 2019).

In this paper, we consider a policy like SNAPS to be one of the potential alternative pathways (Alternative pathway I) to the conventional food assistance systems deployed in many rich-world countries that rely mostly on in-kind distribution. Indeed, food stamps, food vouchers or "credit cards" constitute an alternative way for public authorities to provide food assistance to impoverished households. For example, the SNAPS program transfers credits to eligible families on an electronic benefit transfer card, which can then be used for the purchase of food items from certified retailers. Such systems, which lie halfway on the spectrum between in-kind and in-cash solutions, exist elsewhere too (e.g. in Spain or Italy).

Two additional alternative pathways are evaluated in this paper: both remain within the conventional framework of food distribution (the dominant pathway), but involve changes or improvements. One of these (Alternative pathway II) seeks to improve the logistics of the dominant pathway in order to accelerate the flows of food within the system. This implies providing financial and logistical support to organizations that undertake food recovery and facilitating food donations for food producers, distributors and retailers (e.g. by loosening food hygiene regulations or providing fiscal incentives). The second (Alternative pathway III) seeks to join forces with food-sharing initiatives that have multiplied outside of the conventional food assistance system. These are mainly citizen-led initiatives driven by the motivation to recover food in order to reduce the quantity of food that is wasted in by producers, distributors and retailers. One possible pathway for food assistance transformation is to combine certain aspects of food-sharing initiatives with food-assistance initiatives. For example, in Germany, a large-scale peer-to-peer food recovery initiative (foodsharing.de) partnered with food banks (Die Tafeln) to improve flows of food from donors to recipients. The partnership helps to redirect food bank users to food distribution spots (communal fridges or pantries), which are based on an open-access policy, during hours and days on which they are closed.

While the FEAD and SNAPS have been subject to evaluations in the past (see above), the alternative pathways (II and III) do not seem to have been assessed in the literature. Moreover, to our knowledge, no fully transdisciplinary methodologies have been applied for evaluating food assistance programs. This is the main objective and contribution of the present article.

Theoretical Background

In this paper, we argue that traditional methods used to evaluate complex socio-economic and environmental problems are inadequate for the sustainability challenges faced today. Such evaluations are led by researchers, experts or policymakers using technocratic approaches, which we understand as "involving specialized knowledge and the exercise of technical skills" that form a "legitimating ideology that subtly masks certain forms of social domination" (Gunnell 1982). In such approaches, even where questions are asked to users (using various tools and methods such as interviews, focus groups, questionnaires and surveys, etc.), the methodology, questions and analysis are designed by the research team, which rarely includes the persons concerned by the policy itself. This has epistemic, political and moral implications.

Firstly, the evaluation may ask the wrong questions and overlook important policy areas. For instance, in the case of food assistance, an evaluation may ask the following question on effectiveness: "To what extent does the x program succeed in delivering food supplies to the most vulnerable population in x city?" and may answer it positively, using selected judgment criteria and indicators. However, it is unlikely to assess the contribution to poverty alleviation, or to the experience of self-respect and dignity, for instance. For example, in the SNAPS take-up evaluation, potential program users were not asked why they had not previously applied to verify their eligibility; instead, the study uses control and treatment groups to test interventions and then analyses the data produced to make informed deductions about these reasons. By asking questions from the perspective of policymakers or funders alone, without allowing for the co-construction of the problem or research question, technocratic evaluations are more likely to underrate or exclude some dimensions or aspects experienced by persons in poverty.

Secondly, technocratic approaches fail to consider the political dimension of the policy problem at hand. Indeed, by maintaining policy evaluation in the hands of experts with technical knowledge and sophisticated tools, political issues are removed from the sphere of deliberation and democratic governance. Some scholars have pointed out the "inevitable tension between democratic control of public policy … and regulation by experts" (Shapiro 2005). Others, like Jacques Ellul, have gone one step further to claim that "the dominance of 'technique' in modern society has tended to 'subvert democracy'", leading to a situation in which "the true choice today with regard to political problems depends on the technicians who have prepared a solution and the technicians charged with implementing a decision." (Ellul in Gunnell 1982). As a result, issues like food assistance are viewed more as technical, logistical problems involving the distribution of food rather than the result of structural problems related to poverty, socio-economic inequality and modern food systems.

Finally, such approaches strip the persons primarily concerned with the issue at hand – in the case of food assistance, the users themselves – of having a significant voice in the evaluation process. Beyond the epistemic and political implications outlined above, this can be analyzed in moral terms if the lack of voice is viewed as a non-recognition of the users' experience and knowledge and a case of epistemic (testimonial) injustice (Fricker 2007). When failing to acknowledge users' full capacity as knowers, technocratic studies may treat them as valuable sources from which knowledge may be extracted using a range of methodological tools, but not as full participants of the studies, capable of reflexivity and analysis.

To put it simply, sustainability challenges, including socio-economic problems such as poverty and food insecurity are too complex, value-laden and difficult to resolve using technocratic approaches. Moreover, technocratic methodologies tend to neglect the voice of the powerless and to depoliticize political problems that require deliberation and democratic governance. In the sustainability science literature, such policy challenges are often referred to as "wicked problems" (Rittel and Webber 1973). In the section below, we apply several of the characteristics related to this concept to food insecurity and the food assistance system.

Food Assistance as a Wicked Problem

In their seminal work in 1973, Rittel and Webber list ten traits that are characteristic of wicked problems, which they typically found to be related to governmental, social or policy planning.

Among these characteristics, several are met by food insecurity and the food assistance system. We describe four of these characteristics below:

- **They are not true-or-false but good-or-bad:** This characteristic points to the values behind the policy challenge and possible solutions. Unlike technical or "tame" problems, wicked problems tend to be judged differently by the range of parties involved, according to interests, value-sets or ideological predilections. In food assistance, for example, the beliefs of practitioners range from more "charity-driven" viewpoints attributing poverty or food insecurity to individual characteristics and life choices to more activist perspectives that analyze the policy challenge as resulting from collective and structural problems (Hubert and Nieuwenhuys 2010).
- **They involve high complexity and uncertainty:** The dominant pathway described in Section 2 has steadily grown and evolved into an increasingly complex system since the 1980s, involving a myriad of actors with various values, objectives and means (Arcuri et al. 2016). Moreover, as the system grows increasingly large and evolves more and more outside of the realm of public policy, there is a lack of knowledge both on the number and profiles of food aid beneficiaries (Federation des Services Sociaux 2019), on the numbers and types of food aid initiatives, on the types and volumes of products distributed, on the rules applied for eligibility and on the practices and mechanisms in place. Some initiatives, such as the FdSS mapping project in Belgium, have sought to fill the gaps in the data, however, to our knowledge, there is no systematic collection of data in this sector.
- **They can be described as the symptoms of other problems:** Much of the literature (e.g. Hebinck et al., Caraher, Greiss et al., Arcuri et al.) about food assistance and food insecurity in high-income countries notes that food insecurity is not a problem in itself, but rather a symptom of other structural challenges, such as persistent poverty, weak social safety nets, high unemployment and high food prices relative to income and replacement revenues.
- **Planners, or those who present solutions to these problems, have no right to be wrong:** The stakes are too high and policies have an immediate and direct impact on the people they are intended to help – therefore policymakers have little leeway for testing solutions that are not guaranteed to bring about the best possible results. This is the case with food assistance: discontinuing a program such as the FEAD or SNAPS in the U.S. would have immediate repercussions on persons experiencing poverty. There is little scope for policy experimentation with food assistance programs.

Critical Sustainability Science and Transdisciplinarity

Due to the characteristics described above, socio-environmental "wicked" problems call for an integrated, systemic approach to conducting sustainability science (see e.g. Hirsch-Hadorn et al. 2006). Transdisciplinary methodologies are particularly well-suited to tackle such problems because they enable the integration of knowledge from different scientific disciplines, facilitating the generation of solutions that cut across disciplinary boundaries. Transdisciplinarity also differs from traditional, mode I research approaches in that it involves the participation of non-academic actors: citizens, organizations, policymakers, professionals and other individuals or groups with "on-the ground" experience and expertise, at all stages of the research process, which helps to account for the complexity and values related to the

problem at hand. In contrast to ethnographic or other empirical approaches, transdisciplinary research involves the co-construction of the problem area or research question with actors concerned and at the forefront of the relevant sustainability problem, as well as in the analysis, development of conclusions and recommendations, and publication process. An ideal-type of the features of transdisciplinary research proposed by Lang et al., includes the following elements: transdisciplinary research processes i. are concerned with 'lifeworld' problems; ii. integrate different scientific disciplines; and iii. Involve non-scientific actors in the production of societally relevant knowledge (Fritz and Binder 2018).

In research relating to poverty and other forms of oppression, transdisciplinary approaches have the potential not only to improve the epistemic value or robustness of results, but also to overcome the epistemic injustice (Fricker 2007) or epistemic oppression and silencing (Dotson 2011) faced by individuals whose life situation makes them appear to be less credible, and thus less likely to be consulted, even on issues which concern them directly. By giving a voice to the persons experiencing poverty, who are typically denied the adequate space and time for evaluating policies which concern them, transdisciplinary research can act as a "pro-poor transformative space" which can contribute to overcoming structural injustices in knowledge systems (Marshall et al. 2018). By studying the effects of participation on injustice and taking a political approach to transformation, we position ourselves within the emerging field of critical sustainability science (Fritz and Binder 2018) and we adopt a critical approach to evaluating food assistance pathways.

Here, we utilize the notion of a transition pathway in line with Turnheim et al. 2015. Transition pathways, in the definition of Turnheim et al., are analytical constructions representing "patterns of changes in socio-technical systems unfolding over time that lead to new ways of achieving specific societal functions". Identifying those transition pathways allows to better "sense and apprehend unfolding transition processes and opportunities for intervention." In the case of food assistance, the contestation surrounding the existence of this sector and the "persistent dilemma" (Poppendieck 1998 in Hebinck et al.) facing practitioners, transition pathways are an essential tool for envisaging a plurality of solutions and possible trajectories. Therefore, using interviews and literature, we build ideal-types of food assistance alternative transition pathways, which we understand as a series of measures and initiatives performed by a constellation of actors to alleviate food insecurity in high-income countries by diverging from the dominant food pathways and with the ultimate objective of eradicating poverty. Three such analytical constructions are presented in Section 2 above; each could be considered by public policy, civil society and other relevant actors to modify the existing food assistance regime (dominant pathway).

Beyond Basic Needs

Transition pathways are often studied in the search for solutions to sustainability challenges. In line with the UN's SDGs, we consider poverty beyond the sole characteristic of material deprivation, and consider it as entangled with various other sustainability challenges, including inequalities, health, access to education and work, etc. This broadening of the understanding and definition of poverty was developed by thinkers from the field of philosophy and development studies such as Amartya Sen, Martha Nussbaum and Manfred Max-Neef, who offered various dimensions, aspects and ingredients necessary for the pursuit of the "good life" (Alkire 2002). Rather than studying poverty as the deprivation of basic needs, such as shelter, food and other physiological necessities (Maslow 1943), Sen and Nussbaum offered an

approach based on capabilities. Instead of focusing on the distribution of goods, including the satisfaction of basic needs, this approach suggests to examine what is necessary for individuals to transform resources, such as food, into "the potential for a fully functioning life" (Sen in Schlosberg and Carruthers 2010). Taking this perspective, development and poverty research seeks less to study the distributive aspects of basic goods and financial resources, and instead to assess "how those distributions affect the ultimate wellbeing and functioning of people's lives" (Ibidem) and hence, how well-being and poverty are experienced.

One large-scale international study, led by a team of researchers at the World Bank Poverty Reduction Group, conducted fieldwork in 23 countries involving over 20,000 persons experiencing poverty in order to identify various dimensions of well-being (Narayan et al. 2000) These dimensions, which have served as a basis for assessing the consequences of ecosystem change on human beings in the Millennium Ecosystem Assessment, are summarized below.

i.   **Material well-being:** The first dimension of human development or well-being is perhaps the most well-documented, partly due to its importance though also as a result of its more straightforward measurability. Here, the material dimension includes food, assets (resources such as land, housing, savings and capital, access to consumer goods, etc.) and work.

ii.   **Bodily well-being:** The study identified the importance of a healthy and strong body, both as having an intrinsic value, and as a precondition for obtaining work. One's appearance and physical environment are also components of this second dimension.

iii. **Social well-being:** Components of the third dimension, social well-being, include the capacity to care for, bring up, marry and settle one's children. On the personal and intrapersonal levels, self-respect and dignity as well as peaceful, good relations within the family, community and country were identified as sub-dimensions of social well-being.

iv.   **Security:** The fourth dimension, security, incorporates a wide range of components: civil peace; a physically safe and secure environment; personal physical security; lawfulness and access to justice; security in old age and confidence in the future.

v.   **Freedom of choice and action**: The fifth dimension reflects the importance of having control over one's own life as a necessary ingredient for well-being. The freedom to choose and act autonomously concerns both every day, basic actions as well more strategic decisions such as the pursuit of education, travel, and fulfill a moral responsibility, e.g. giving to charity or a religious organization.

vi.   **Psychological well-being:** The sixth dimension, which is interwoven in the five others described above, includes peace of mind, happiness and harmony.

vii. **Interpersonal justice**

To this list of dimensions, we add an additional criterion which is not explicitly included in the *Voices of the Poor*: the concept of fairness. Although the link between fairness and wellbeing as such has been insufficiently addressed in research (Prilleltensky 2011), literature from the fields such as psychology, economics, epidemiology and philosophy suggest that the experience of justice, fairness and equality is central to the prosperity of individuals, human relationships, and societies. Moreover, fairness or equal opportunity is implicit in some of the dimensions developed elsewhere. For instance, Nussbaum's extension of Sen's capabilities approach includes the right to hold property and to seek employment, but more specifically, "having property rights on *an equal basis with others*" and to "seek employment on an *equal basis with others*." In some ways, the

concept of fairness related to lawfulness and access to justice is included under the fourth dimension of Narayan et al., though in this paper we understand it as a separate dimension that goes beyond its institutional or political implications. Finally, fairness as a criterion for well-being fulfills Finnis' logic of including dimensions that constitute "basic reasons for action" (Alkire 2002). Therefore, despite its absence from most « lists » of human needs and values, we include it here as one dimension of well-being. We distinguish between procedural fairness and distributive fairness, the first being concerned with "fair, transparent, informative, respectful and (…) participatory decision-making" (Prilleltensky 2011). The second refers to outcomes: here we use the criterion of need and thus define distributive fairness as an outcome in which a distribution of resources is based on what individuals require to survive and to thrive (Ibidem). Taken together, the two criteria are termed *interpersonal justice*.

viii.   Selection of dimensions and sub-dimensions

Conversely, we do not include psychological well-being, the last of the dimensions identified by Narayan et al. This is because it is a dimension that is "interwoven" with the others, and thus it is more difficult to isolate in order to operationalize and evaluate it. We see peace of mind, happiness and harmony as a state resulting from the fulfillment of and interaction between other criteria: material, bodily and social well-being, as well as security and freedom of choice and action. We therefore retain the five components of well-being as identified by Narayan et al., to which we add the notion of interpersonal justice, as discussed above. We select the sub-dimensions most relevant to the context of food assistance (i.e. for "Security" we choose to focus on a "Physically safe and secure environment" rather than "Civil peace", for example). Moreover, we retain the six components as equally important, without attributing specific weights to each of the dimensions and sub-dimensions. However, as we will see, the dimensions take relatively more or less space within the research and social learning process, as discussed in Sections 5 and 6. The following table lists the dimensions retained for analyzing the dominant and alternative pathways (Table 1).

Table 1 Dimensions and sub-dimensions of well-being and poverty

Dimension of well-being	Sub-dimensions of well-being
1. Material well-being	a. Food
	b. Assets
	c. Work
2. Bodily well-being	a. Healthy & strong body
	b. Appearance
	c. Physical environment
3. Social well-being	a. Being able to care for, bring up, marry children
	b. Self-respect and dignity
	c. Peace & good relations
4. Security	a. Civil peace
	b. Physically safe & secure environment
	c. Lawfulness & access to justice
	d. Security in old age
	e. Confidence in future
5. Freedom of choice and action	
6. Fairness	a. Distributive
	b. Procedural

Materials and Methods

After a series of exploratory interviews with key policymakers, the pathways (including the current dominant pathways) to improving food security were identified using a review of scientific articles and "grey" literature. The *dominant pathway,* which represents the status quo, is largely based on the current policy in Brussels (Belgium), although this closely resembles the pathway followed in many high-income countries.

To evaluate the pathways, a transdisciplinary study was led on food assistance in 2018–2019, titled "Food Aid: What Alternatives?" (FAWA). It included persons experiencing poverty (former or current users of food assistance), social workers involved in the distribution of food aid and university researchers specialized in various disciplines at each stage of the research process, from the construction of the research question to the publication of results. The methodology of the research was based on Merging Knowledge, a participatory approach developed by ATD Fourth World in the 1990s, and whose main principles and preconditions are set out in a set of published guidelines (see charter 'Guidelines for the Merging of Knowledge and Practices When Working with People Living in Situations of Poverty and Social Exclusion' and Ferrand et al. 2008). The research consisted of five transdisciplinary workshops conducted over a six-month period, including two workshops dedicated to the co-construction of a research question, two workshops devoted to the co-production of knowledge using tools such as theatre forum and photovoice, followed by a co-creation process which resulted in the publication of a report (ATD, FdSS and UCL 2019).

After selecting sub-dimensions relevant to the context of food assistance and designing a coding scheme, we were able to assess the characteristics of four pathways (the dominant pathway and three alternative pathways) using the six dimensions on well-being identified in the previous section: material well-being; bodily well-being; social well-being; security; freedom of choice and action; and interpersonal justice. Finally, the workshop data was complemented with transcripts from interviews conducted with workshop participants prior to and following the participatory research. The ex-ante and ex-post interviews provide insight on the preferences of individual participants in three policy areas, as well as their sense of empowerment.

Data Analysis

In this section, we present and analyze the data produced through the participatory research process. Based on the workshop notes, final report and interviews, we evaluate both the dominant pathway and three alternative pathways according the six dimensions selected in Section 3, for which we further select relevant sub-dimensions. The (sub-)dimensions related to social well-being (dignity and self-respect), freedom of choice and action and fairness are the most abundantly explored in the FAWA project, hence their evaluation can be considered to be the most detailed and robust. Interestingly, dimensions related to basic needs (i.e. material well-being, bodily well-being and security), were addressed relatively marginally by workshop participants. The criteria and coding scale used to evaluate the sub-dimensions are included in the Annex 1 Table 4. We use the criteria and scale to assess the four pathways presented above in Section 2: the dominant pathway, food stamps (alternative pathway I), improved logistics within the conventional food assistance system (alternative pathway II), and peer-to-peer food-sharing within conventional food assistance system (alternative pathway III).

We quote practitioners, academic researchers and activists. Activists are members of the ATD Fourth World movement who have or have had an experience of living in poverty and are involved in the movement's activities to various degrees. In the case of the *FAWA* project, activists are also former or current users of food assistance.

The Conventional Food Aid System (Dominant Pathway)

Material Well-Being (Food)

For this dimension, we selected the sub-dimension "Food" to evaluate, quite simply, the capacity of the conventional food aid system to deliver food to its users. Coding of the evaluation scales focused on outcomes: whether users in need are able to access food assistance all year long, implying they never go hungry and need not skip meals (coded "high" as compared to medium and low, see details of the coding scheme in Annex 1 Table 4). This roughly corresponds to the concept of food security as defined by the FAO and adopted at the 1996 World Food Summit: "when all people at all times have physical and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preference for an active and health life." We evaluate this sub-dimension in material well-being as "MEDIUM", based on notes and the final report of the FAWA project. The following reasons are evoked: Firstly, the existence of eligibility criteria leads to the exclusion of a proportion of individuals and households who are unable to provide sufficient food for their families all year round. Indeed, having a (residual) revenue just slightly above the threshold for eligibility – usually the poverty line – may exclude a person who nonetheless experiences food insecurity and extremely precarious living conditions. The following quotes from the workshops illustrate this reality:

> "You might be just above the limit and not have a right to the food assistance, but its still very very hard." (Practitioner, Workshop 5)

> "Food assistance: there are families who need it but do not receive it." (Activist, Workshop 3).

> "To get our parcel, we have a right, but if a person who is poor does not have her ID papers, she has access to nothing. Not everybody is eligible to benefit from food parcels. Some unemployed persons do not. We cannot exceed a certain sum." (Activist, Workshop 1).

Second, for those who are eligible and can access the food assistance system through one of its outlets (parcel distribution, social grocery store, etc.) the frequency and quantity of food distribution is often considered to be insufficient. In some cases, a local distribution center that a household or individual may be eligible to access distributes food only once per week, or once every two weeks. This means that individuals or households experiencing poverty and food insecurity have to skip meals or suffer from insufficient or unhealthy (non-nutritious) food to "last" until the following parcel or meal distribution.

> "The beneficiary maybe (asks for more, insists, takes more than is allowed) because he needs more, because he has a large family and he wants the service to understand that his share is too restrained (…) Notice also that for people who are hungry, food aid is just an emergency aid, it is not enough to eat for the whole month." (Activist, Workshop 3)

However, we do not attribute a "LOW" score on this dimension, due to the existence – at least to a certain extent – of some food assistance outlets that distribute food with little or no conditionality. For example, some *soupes populaires* (soup kitchens) or social restaurants accept beneficiaries without ex-ante means-testing or other requirements: it allows persons to eat a warm and healthy meal regardless of their financial situation.

Bodily Well-Being (Strong and Healthy Body)

The sub-dimension of a "Strong and healthy body" was used to evaluate bodily well-being. In the context of food assistance, we attempt to assess the quality of the food delivered, both in terms of food safety, nutritious value and a subjective appreciation by users. The sub-dimension was evaluated to be "LOW", because the food distributed through the current food assistance system was generally considered not to be of high nutritive quality. The products distributed in many food assistance programs are those recovered from or donated by agro-industrial producers, distributors and retailers. As such, the food products are sometimes past the expiration or "best before" date, damaged in some ways and they are often non-perishable food items. These tend to vary in quality, but a common challenge is for food organizations to find and distribute fresh products such as fruits, vegetables, eggs, meat, fish and dairy products. As one participant put it:

> "When you offer food parcels, oftentimes there are products that are expired. It's nice of you to want to help others, but from time to time you should check the food parcels and the dates on them (…) Finally, in the parcels we receive products beyond their expiry date, sometimes some frozen meat, but what we never get, is vegetables. There needs to be something acceptable for families. Some fresh vegetables would be good to have, from time to time." (Activist, Workshop 1)

Therefore, even when the food distributed is edible and safe to eat (which is not always the case – some participants of the FAWA project reported receiving spoiled food), it is often of mediocre or poor quality and does not allow beneficiaries to cook balanced and nutritious meals necessary for gaining and maintaining a strong and healthy body.

Social Well-Being (Dignity and Self-Respect)

Social well-being, and particularly the sub-dimensions of self-respect and dignity, was at the heart of the transdisciplinary project. Indeed, the three peer groups involved in the research co-constructed the research question, which focused on understanding the causes and conse-quences of the violent and degrading situations in food assistance programs, whilst attempting to offer possible solutions or alternatives. The current food assistance system was evaluated as providing "LOW" dignity and self-respect, for a number of reasons. Related to the previous two dimensions, the quality of food and its origins are considered by workshop participants to have an impact on the dignity and self-respect of users. While food assistance beneficiaries are aware of and sensitive to issues related to food waste, the FAWA report notes the degrading and violent effect on them of consuming food that is expired or considered undesirable by other consumers in shops, then donated to charity organizations. Even when the food is edible, the fact of having to consume products that would otherwise constitute the waste of a city or neighborhood, raises questions for the dignity, respect, and overall well-being of persons who, too often, are forced to consumer society's second-hand products due to limited resources. The

stigma and humiliation associated with consuming otherwise wasted and undesirable food is contrary to the dignity and self-respect that make up social-well-being. As Wilkinson and Pickett (2010) put it, "second-rate goods are assumed to reflect second-rate citizens."

Another aspect that was noted to contribute to the erosion of self-respect and dignity is the procedure to access the food distribution system. In outlets that use means-testing as a condition to distinguish between those eligible or not for food assistance, potential beneficiaries are screened with regard to their income and expenses. In addition to providing identity documents, they must be able to present proof of their revenue (salary or replacement revenue), expenses related to living costs (rent, electricity costs, etc.), debts, medical payments, and in some cases, additional evidence of their financial situation. In some cases, the organization schedules a visit to the potential beneficiary's home. These intrusive measures are a source humiliation for users of food assistance programs, and leads to a situation of subservence, in which they have no choice but to reveal the details of their private lives if they wish to obtain the food parcel or access to the outlet.

Security (Physically Safe & Secure Environment)

This sub-dimension was only marginally evaluated in the FAWA project. Indeed, most of the violent and degrading situations that were analyzed referred to institutional violence and socially or psychologically degrading rules, practices and behaviors. However, in two of the workshops, participants described acts of physical violence between beneficiaries in food assistance outlets. It seems that the conflicts and resulting physical violence tends to originate from situations of (real or perceived) injustices with regard to access to food distribution or with regard to unfair distribution, situations that generate shame and humiliation (Wilkinson and Pickett 2010).

Occasionally, parcel distribution outlets hire security guards to maintain "order" – this on one hand brings a sense of safety and security because it ensures that conflicts will not escalate beyond a certain point; however, on the other hand it may lead beneficiaries to feel that they are not in a physically safe and secure environment, preventing them from enjoying a meal in a relaxed atmosphere. For these reasons, we evaluate the security dimension of well-being as "MEDIUM."

Freedom of Choice and Action

This sub-dimension emerged as crucial in the course of the project. From the first workshop and onwards, a debate persisted between project participants and peer groups concerning the absence or presence of choice in the current food assistance system. While the practitioners' group largely perceived the system as allowing the freedom of choice and action ("(….) *what I wanted to say is that there is no constraint in the choice. In the on-campus social pantries, we never offer a fixed parcel, we give the freedom of users to choose the products themselves*") while the activist group challenged the account, considering that in most cases, food assistance outlets did not give much freedom ("*If we are given a parcel, we don't have the freedom to choose. It's not a desire, it is imposed.*" (Activist group, Workshop 1)). Beyond the diversity of rules and practices governing the distribution at different types of outlets, the lack of freedom of choice and action was also explained as the restrictions faced by persons

experiencing poverty in their everyday choices. The need to ask for help at a food distribution outlet, for example, was already perceived as being a constraint, a non-choice.

> *"It's hard to take a first step to the food bank. We have pride, after all. One day, there's a person who said: 'Your pride, take it off and put it behind your back. You have to move forward to go get a parcel' (…) and if you have children, you have to fight so that they have something to eat in the evening, so you put your pride behind your back and you go to the food back, you have to do it for the kids. And we don't have a choice."*
> *(Activist, Workshop 1)*

The concept of freedom of choice and action –at different levels of the food assistance system and beyond it – pervaded many of the discussions throughout the research process. The research group finally converged around the evaluation of the current system as being largely constraining and failing to provide users with freedom to choose and act as they see fit within the sub-system. The final report states:

> *"Beyond the choice to accept or refuse a [specific] product, there is the notion of (non)choice of persons experiencing poverty, who, due to limited financial resources, have to renounce a part of their freedom. Even when they share the values and objectives related, for example, to the sustainability of food systems or to food waste, it is the lack of choice and control that is experienced as violent."* (Final report, p. 53)

In addition to these points, freedom of choice and action involves being able to help others (Narayan et al. 2000). Solidarity and competition among participants emerged as an important theme in the research, with solidarity understood as having the capacity to help others in need. In one situation that was analyzed by the group in the transdisciplinary workshops, participants pointed out that the transgression of a rule by a food aid beneficiary was likely to have been motivated by the desire to take on greater quantities to help others:

> *"He may have wanted to help others who do not have access to the service or do not have the courage to take the first step (due to fear of judgment). People sometimes have access to a form of aid but others do not, or do not dare to ask for access. So then, the person who goes will try to take more to help the others."* (Activist, Workshop 3).

Participants discussed factors that contribute to strengthening or weakening solidarity among food assistance users. For example, they reported that social services tend to discourage solidarity, or to overlook solidarity mechanisms that exist between beneficiaries:

> *"There was something else that was violent and degrading – it's when the volunteer says: 'Well don't go bringing me everybody from the local public welfare office!' This isolates the person."* (Academic, Workshop 4)

> *"There is a breakdown of solidarity, a form of blackmail: it puts people into competition."* (Practitioner, Workshop 4).

Interpersonal Justice

Along with social well-being and freedom of choice and action, the dimension of fairness was at the heart of the research project. By defining interpersonal justice as a combination of

procedural and distributive justice, we evaluate the current food assistance system as fulfilling two conditions: allowing beneficiaries to "get their fair share" (distributive) and to "have a voice" in the process (procedural) (Prilleltensky, 2011). On these grounds, the current system is evaluated as scoring "LOW" on fairness, given that both conditions are poorly respected.

One of the project's main findings was that the lack of voice of beneficiaries in distribution outlets, in the food assistance system and in society as a whole constitutes a source of violence and degradation for users. They are rarely, if ever, consulted or invited to participate in the selection of products, the distribution modes and governance of food distribution outlets, etc. The final report distinguishes between bilateral communication (between practitioners and beneficiaries) and collective expression (having a voice as a group of beneficiaries within an outlet, sector or region). For both types of expression, the research group noted the lack of time and resources dedicated to ensuring effective communication between practitioners and users, restrictions on the freedom to express various issues (e.g. to issue complaints) for fear of negative consequences, and a lack of spaces to collectively contribute to the elaboration of rules, practices and governance aspects.

> *"To me, there is a non-freedom of speech. Because if you do not have the right to do anything more but queue in the line and wait, you have no way to express your frustration." (Academic, Workshop 4)*

This was one of the main ideas and demands of the project: to create a space for the collective expression of users of social services, to serve as a counterpart to organized groups of social workers, food banks, or other key actors.

Regarding distributive justice, the dominant pathway demonstrates mixed results. On one hand, extensive means-testing procedures to determine eligibility aim also to provide users with a "fair share", by considering the household's situation, number of adults and children, revenue, health, etc. However, workshop participants deplored the fact that households' needs are insufficiently considered by social services (Final report, p. 31).

> *"When a person has difficulties to make it until the end of the month, we should try to understand how she could feed her family, feed her children, and all those around us." (Activist, Workshop 3).*

They repeatedly recounted situations of real or perceived situations of distributive injustice:

> *"One of the couples receives a parcel of fresh food straight away, whereas the others have to justify themselves. Some people arrive a get help immediately, while others have to fight to get anything." (Academic, Workshop 4)*

In addition to a wide variety of rules that exist, there is also a diversity in the way that staff or volunteers *apply* those rules, or make exceptions to accommodate different needs or situations. This can also be experienced as an injustice by those for which no exceptions are made. In general, workshop participants acknowledged a lack of transparency of rules and a degree of arbitrariness (Final report, pp. 29–30).

> *"... There are two inequalities: in the way that the rules are applied according to the based on the identity of the beneficiary and based on the staff member present on that day to the staff." (Academic, Workshop 4)*

"I changed my behavior in the scene. For the other clients, it becomes unfair. We had our rules, we always received the same quantity, and now it was reduced all of a sudden." (Participant, Workshop 4)

A combination of low procedural justice and mixed results on distributional justice leads us to evaluate interpersonal justice as "LOW" overall. The following table summarizes the results of the evaluation according to the six dimensions and sub-dimensions (Table 2).

Alternative Pathway I: Food Stamps

The main benefit of food stamps, vouchers or credit systems is that they enable users of food assistance to make their own choices concerning food purchases. Barring certain prohibited products such as alcohol and tobacco, beneficiaries can access regular retailers without resorting to charity or faith-based organizations. This has the potential to reduce the stigma, shame or subservience related to receiving food assistance (social well-being). This pathway would also likely improve material and bodily well-being, by allowing beneficiaries to freely select products in a supermarket. Finally, security would likely improve because the location of food aid distribution would be displaced from food assistance outlets to regular (and likely safe) food retailers such as supermarkets.

Alternative Pathway II: Improved Logistics within Conventional Food Assistance System

The effects of this pathway are likely to improve the quantity and quality of food distributed through food assistance outlets by reducing the time that elapses between the donation of a product and its re-distribution. This would also increase the amount of fresh food distributed by organizations. Therefore, the material and bodily well-being of beneficiaries is likely to improve to some degree if this pathway is followed. However, as it remains firmly rooted in the conventional food assistance system, other dimensions would probably not be affected.

Table 2 Evaluation of the dominant pathway according to six sub-dimensions

Dimension	Sub-dimension	Criteria applied to food assistance	Evaluation
Material wellbeing	Food	• Having access to food assistance at all times of the year/month; • Never going hungry; • Access to three meals a day.	MEDIUM
Bodily wellbeing	Strong and healthy body	• Having access to food assistance that is healthy, nutritious and of high quality.	LOW
Social wellbeing	Self-respect and dignity	• Having access to food assistance in a way that does not put one in a situation of subservience, humiliation or shame.	LOW
Security	Physically safe and secure environment	• Having access to food assistance in a relaxed atmosphere with a high level of personal safety.	MEDIUM
Freedom of choice and action	Freedom of choice and action	• Having a choice and control over what, how, and when one eats; • Being able to help others if one wants to.	LOW
Fairness	Interpersonal justice	• Receiving one's fair share of food; • Having a voice in the system or the relationships that constitute it.	LOW

The freedom of choice and action would be impacted if the quantity of food would suffice to remove eligibility criteria, but this would be an additional change unforeseen by the strategy of improving the logistics of food recovery and redistribution.

Peer-to-Peer Food-Sharing within Conventional Food Assistance System (Alternative Pathway III)

This would have the following impacts: there would likely be an overall positive effect on the material well-being sub-dimension, because food assistance beneficiaries could have access to products unconditionally and at different times of the day, week or month. The impact on physical well-being is unclear: on one hand, food recovery initiatives tend to collect more fresh products, essential to a healthy diet. However, this is difficult to predict and depends on donations and recoveries. Concerning social well-being, this sub-dimension is likely to improve, as food aid beneficiaries are integrated into collaborative, collective initiatives that tend to enhance agency. Accessing recovered food through initiatives that are largely citizen and not charity-based, may improve the sense of dignity and self-respect that is often eroded through food bank use. In the same way, freedom of choice and action is improved in this pathway. The impact on users' physical safety and security is unclear, as it depends largely on the context and location of the food-sharing initiatives. Finally, there is no expected change in the interpersonal fairness sub-dimension. Indeed, food-sharing initiatives often function on a first-come-first-served basis, therefore the dimension dealing with distributional justice is not enhanced. Moreover, no additional mechanisms for having one's voice heard are put in place in this pathway. The following table summarizes the impact of the different pathways on the six dimensions of well-being.

Discussion

Main Results and Limitations

The results of the data analysis are insightful with respect to several dimensions. Firstly, in contrast to previous evaluations discussed in Section 2 above, the dominant pathway scores "LOW" on most of the selected dimensions, and "MEDIUM" on the two of these. This indicates significant shortcomings in the food assistance system as it is currently organized in many countries. Interestingly, as mentioned before, the two dimensions for which the dominant pathway scores "MEDIUM", i.e. the dimension of material well-being and security, are among the first of the "basic needs" as defined by Maslow. The dimensions related to facets of poverty that were less frequently cited in the poverty literature prior to the 1980s, i.e. social well-being, freedom of choice and action and interpersonal justice do not score any higher than a "LOW". In other words, while the dominant food aid pathway succeeds, to some extent, in ensuring its purpose of distributing food in a relatively secure environment, the outcomes on other dimensions of well-being (the "higher" needs according to Maslow) are more debatable.

Secondly, we note that the various alternative pathways provide an opportunity for improving most of the dimensions. For material well-being, physical well-being, social well-being, and freedom of choice and action, two possible pathways were identified that could improve those areas. In some cases, the complexity of the potential causality rendered it impossible to estimate the potential impact of a pathway on a given dimension.

Thirdly, and in contrast to this second point, none of the identified alternative pathways to food security allow for improvement in users' interpersonal justice as defined in this paper. Indeed, the alternative pathways analyzed do not offer remedies for ensuring that beneficiaries receive their fair share of food (in quantity and quality), nor that their voice is heard – either collectively or in bilateral relationships within the food assistance system. This result suggests that an important policy development in the area of food security is to explore and develop possible alternative pathways that improve justice in food assistance systems. This is in line with the main results and recommendations of the FAWA project.

Several limitations to this theoretical work should be considered. The dimensions listed in Table 3 and for which the various pathways are analyzed are in fact *sub-dimensions* that have been selected among several. With the exception of the fifth dimension (Freedom of choice and action), each of them includes additional sub-dimensions. For instance, social well-being includes not only self-respect and dignity, but also peace, harmony and food relations in the family and community (Narayan et al. 2000). As a result, when analyzing the effects of an alternative pathway on a single sub-dimension, we may overlook trade-offs between different sub-dimensions not considered here.

Table 3 Expected changes in well-being dimensions according to alternative pathways

Dimension	Sub-dimension	Criteria	DP	API	APII	APIII
Material wellbeing	Food	• Having access to food assistance at all times of the year/month; • Never going hungry; • Access to three meals a day.	MEDIUM	No change	↑	↑
Bodily wellbeing	Strong and healthy body	• Having access to food assistance that is healthy, nutritious and of high quality.	LOW	↑	↑	Unclear
Social wellbeing	Self-respect and dignity	• Having access to food assistance in a way that does not put one in a situation of subservience, humiliation or shame.	LOW	↑	No change	↑
Security	Physically safe and secure environment	• Having access to food assistance in a relaxed atmosphere with a high level of personal safety.	MEDIUM	↑	No change	Unclear
Freedom of choice and action	Freedom of choice and action	• Having a choice and control over what, how, and when one eats; • Being able to help others if one wants to.	LOW	↑	No change	↑
Fairness	Interpersonal justice	• Receiving one's fair share of food; • Having a voice in the system or the relationships that constitute it.	LOW	No change	No change	No change

DP Dominant Pathway, *AP* Alternative Pathway

Another limit concerns the necessary simplification of the pathways for the purpose of analysis. In this article, we considered ideal-types for both the dominant and alternative pathways, so as to encompass various policies that could be adapted according to the regional or local context. However, clearly, ideal-types mask details that may be of crucial importance. For example, the FAWA final report (pp. 27–28) mentions that improving communication skills and requiring social workers and volunteers to undergo specific trainings could serve to attenuate some of the existing violent situations in the field. At other moments, participants mentioned that being treated in a friendly manner, "not as just a number", would make the experience of food assistance less degrading. Although personal agency and micro interactions cannot be accounted for in the evaluation, they may ultimately have an important impact in individual situations. Moreover, the omission of more important nuances such as the existence of social restaurants, which were less prevalent in the debates of the FAWA project but also a less frequent form of food assistance in the dominant pathway, may skew the results of the present evaluation.

Finally, it should be noted that the transdisciplinary study was conducted with a relatively small number of participants (according to the study phase, about 5 persons per peer group: activists, practitioners and university researchers). While the Merging Knowledge methodology specifically aims to construct knowledge collectively, supported by but going beyond individual experiences and stories, it should be kept in mind that the analysis was conducted with approximately a dozen co-researchers, each with his/her own knowledge, experience and position within the dominant pathway.

Links with Amartya Sen's Capability Theory and Maslow's Hierarchy of Needs

The findings discussed above show that although the dominant food assistance pathway may be moderately successful in delivering food to beneficiaries in a secure environment, it presents several shortcomings, most notably related to the absence of users' freedom of action, self-respect and dignity, bodily well-being and experience of (in)justice. These shortcomings are crucial enough to influence the well-being of persons experiencing poverty who turn to food assistance as a means of subsistence. In other words, feelings of shame, lack of freedom, the poor or mediocre quality of food and the injustice experienced by making use of the food assistance system may prevent persons experiencing poverty from reaching well-being, despite that same system successfully covering the basic needs of food provision.

A contestation of the idea that poverty should be measured using absolute thresholds based on deprivation of basic needs, and hence, that well-being can be summed up as the satisfaction of those basic needs, is in line with Amartya Sen's proposed approach to the measurement and definition of poverty (Sen 1983). Indeed, Sen contrasts an approach based on access to or ownership of commodities (e.g. food, or a bicycle), with that of the commodity's contribution to a person's capability to function, i.e. to live a fully flourishing life. Sen enumerates several capabilities, including the possession of the right commodities to avoid shame, and the participation in the activities of the community. This approach reconciles absolute and relative approaches to the definition and measurement of poverty; indeed, as Sen writes, "a relative failure in the commodity space [results in an] absolute deprivation in the capability space." In other words, depending on the context, the commodities required to live a fully flourishing life may differ; however, the feelings of shame and the obstacles to participating in the activities of a community are experienced similarly when a person is deprived of those commodities.

Sen uses the example of a bicycle to demonstrate that a *commodity* (the bicycle) differs from its *characteristics* (transportation), which in turn differ from the *capabilities to function* (ability to move) that become possible through that commodity, and from the *utility* generated from that capability to function by the specific person. If a person receives a bicycle, but is unable to ride it due, for instance, to a disability, one would be deprived of the capability offered by the commodity. To put it simply, the capabilities approach looks not at what one *has* or how one *feels,* but rather, what one can *do* and *be* (Hick and Burchhardt 2016. The link with food assistance is as follows: while in the dominant pathway, food assistance systems are useful for distributing commodities, they seem to lack the necessary characteristics to fulfill the capabilities related to living without shame and being able to fully participate in public life. This challenges the claims set forth in Abraham Maslow's hierarchy of needs: the need for food (a basic, physiological need) does not simply precede "higher" needs such as dignity, respect, freedom of choice and action, or justice. These needs go hand-in-hand, in the sense that without one, the other cannot be fully enjoyed. Ultimately, the FAWA project demonstrates that self-actualization should accompany a public intervention as simple as the distribution of food products. In other words, the full capability and functioning related to nourishment matter, and not only the resource or its characteristics.

Social Learning

As discussed in section 2, technocratic approaches to evaluation are unlikely to consider the well-being of food assistance users in its multdimensionality. However, anthropological (e.g. Lambie-Mumford et al.), ethnographic (e.g. Garthwaite 2016) and sociological studies (e.g. Booth et al. 2018) have pointed out the shortcomings of food assistance programs in the global North, indicating that users often report feelings of shame and stigma when approaching organizations. Taking the growing literature on this topic collectively, one might arrive at similar conclusions to those reached under Section 5. However, transdisciplinary approaches are also valuable due to the societal and social learning outcomes they generate, as well as the empowerment that may result among participants directly involved in such projects.

Indeed, the literature on sustainability acknowledges social learning as a crucial step for achieving transformative results through collaborative processes. Alongside societal and scientific results that are should be attained, it is considered to be one of the outputs of purposive transdisciplinary research aiming to increase the likelihood of persistent change (Mitchell et al. 2015). However, the "range and mix of concepts implicitly associated with social learning has greatly reduced the applicability of the concept" (Reed et al. 2010).

For Van der Wal et al. (2013), who assess its incidence in collaborative governance arrangements, social learning is necessary because it "creates the basis for integrated solutions that require collective support and/or concerted action of multiple stakeholders (Roeling 2002) and its potential role as a governance mechanism in natural resource management and climate adaptation has been frequently highlighted over the past decade." Reed et al. provide a detailed discussion of social learning, acknowledging that it "is increasingly becoming a normative goal in natural resource management (…)" and that this is "linked to earlier shifts toward adaptive management and stakeholder engagement as a means to cope with complexity and the resultant uncertainty with which managers are faced."

Based on the general conclusions of Herrero et al. and one of the twenty case studies used in the comparative analysis on which the conclusions are based, the Merging Knowledge process is expected to reach relatively high levels of social learning. This is because the

approach favors a high degree of co-construction in the problem framing and definition of the research question, it encourages the explicitation of normative backgrounds held by participants, and it pays particular attention to differences in power and access to resources. However, our previous work on social learning did not make a distinction among participant groups, assuming a homogeneous level of social learning among all members of the research team. Similarly – and linked to this point – social learning outcomes were not empirically tested with individual participants; instead, a general level was estimated by the principal investigators of the twenty research projects assessed. These are the points on which we attempt to advance in the present article: using individual semi-structured interviews prior to and following the collaborative research process, we assessed the social learning that was generated among participants, based on the reference group to which these participants belonged.

Using the *ex-ante* and *ex-post* interviews, we investigated the social learning generated in the participants' policy beliefs, i.e. their policy position concerning basic strategies for achieving certain goals in the food assistance system. We focus here on empirical policy beliefs (see Matti and Sandstrom 2011), in which respondents are asked about the causes of and possible solution strategies for given problems. We do not, on the contrary, test for any changes in deep core beliefs, which resemble values and general conceptions of what is desirable. These are rather stable in time and unlikely to evolve through a relatively brief transdisciplinary research process. Following Reed et al., we define social learning as a change in understanding which takes place in individuals that occurs as a result of social interactions and becomes situated in wider social units or communities of practice (Reed et al. 2010).

Empirical Policy Belief 1: Means for Distributing Food Assistance (In-Kind vs In-Cash)

The first empirical policy belief which was tested for the generation of social learning among workshop participants relates to the distribution of food assistance. A long-standing debate among economists and development scholars compares the relative effectiveness and efficiency of three types of policy instruments for the distribution of aid: in-kind, in-cash or using an intermediate option such as vouchers. We asked participating activists, practitioners and academics what they thought the best option would be for the distribution of food assistance, by asking them to choose between food assistance as it is currently distributed, food vouchers, or increases in replacement revenues. The results show that support for food aid distribution as it is currently conducted as well as support for food vouchers fell among participants after the transdisciplinary process, while support for in-cash assistance increased.

Empirical Policy Belief 2: Conditionality for Accessing Food Assistance

The second empirical policy belief that was tested considered the conditionality of food assistance. We asked participants whether they thought that food assistance should be provided after means-testing or unconditionally. For means-testing, we asked whether only revenue (disposable income) should be considered, or whether discretionary income (disposable income less rent, utilities, debt, and other necessary expenses) is the more appropriate criterion. A comparison of *ex-ante* with *ex-post* preferences shows that support for means-testing based on revenue (disposable income) – initially quite low – remained unchanged throughout the process. As in the beginning, at the end of the research project participants considered this criterion to be insufficient to determine the situation of an individual or household. Preferences

related to discretionary income fell after the conclusion of the research project, but remained positive. Support for open (i.e. unconditional) access to food assistance rose.

Large differences between the different peer groups suggest that a closer look must be taken at the social learning that took place on this policy belief. Indeed, *ex-post* interviews show the activist group clearly preferred the discretionary income option, while practitioners expressed unambiguous support for the open access option. The group of academics were divided between these two options, and offered several other possible criteria for accessing food assistance. This tension can be explained by the strong emphasis that was placed during the research process on the violent and degrading situations resulting from the requirement for beneficiaries to provide proof (in the form of documents or, less frequently, home visits) of their living and working situations. Participants responded to these discussions in different ways: most practitioners suggested to eliminate access criteria altogether –despite admitting that this position was perhaps too idealistic - while academics proposed a number of new solutions. Activists continued to favor multiple criteria for reasons related to distributional fairness, i.e. to ensure that those most in need are able to have access to the limited resources offered by the food assistance system in a way that does not require beneficiaries to reveal personal data repeatedly. The table included in the Annex 5 Table 7 offers insights on the responses provided by participants in ex-post interviews. It shows that the social learning generated through the research produced heterogeneous results, both between and within the peer groups. The most homogeneous group remained that of the activists, while academics diverged the most in terms of ideas and opinions. However, most of the responses provided by the participants of all three peer groups are related to the objective of avoiding violent and degrading situations related to means-testing. Thus, the ex-post interviews show a convergence in the objectives, but a variety of possible policy responses emerging from the different participants of the research process.

Empirical Policy Belief 3: Solutions for Improving Access to Healthy Food

Finally, we asked participants to consider possible solutions for improving access to healthy food for all members of society, beyond the food assistance system. This was formulated as an open question, allowing the activists, practitioners and academics to evoke ideas, policy instruments and initiatives that they thought could be useful in achieving a more inclusive food system. Implicitly, the question also served to shed light on perceived root causes of food insecurity experienced by households in high-income countries. Seven types of solutions were evoked by participants: five of these propose changes within the current agro-industrial system; two suggest structural changes that fundamentally modify the production system and imply broader societal changes. We list the seven policy types identified by interviewees below:

1. **Supply-side measures** relate to influencing the price and supply of healthy food using classical policy instruments (e.g. subsidizing local and/or organic production, taxing unhealthy products);
2. **Demand-side measures** relate to policies that raise consumers' purchasing power and stimulate demand, including through food vouchers and poverty reduction measures aiming at enabling individuals and households to purchase healthier and better-quality food;

3. **Education**, awareness-raising and spreading information about nutrition, health and agriculture, but also about citizenship and solidarity;
4. **Optimizing food recovery** relates to measures that enable more efficient matchmaking between unsold food products and food assistance schemes or other forms of food distribution.
5. **Collective solutions** include grassroots social innovations (e.g. short food circuits and citizen-led food recovery), social economy actors (e.g. cooperatives) and collaborative economy organizations;
6. **Reforming the current agro-industrial model** includes more structural measures leading to a reform of the industrialized model of food production and distribution. It includes measures related to international trade agreements and to promoting the right to food, and as well as ways of shifting the current power imbalances present along the food chain.
7. **Broader societal change** relates to responses given by interviewees that challenge the current societal *status quo* in a more radical way than the aforementioned policy options. They put into question the current growth-driven, consumption-oriented economic model.

An analysis of the *ex-ante* interviews shows high support for educating consumers, enacting supply-side measures and reforming the current agro-industrial system. These measures were mentioned most often by participants (six times, five times and five times respectively). Following the FAWA project, support for reforming the current agro-industrial system and for supply-side measures was strengthened (these measures were mentioned eight times respectively). Moreover, collective solutions were also favored by participants, and support for this option more than tripled (from two participants to seven), while support for consumer education fell. The graphs included in the Annex 6 Fig. 2 present the detailed results from this analysis. Interestingly, support for optimizing food recovery fell: participants mentioned this option four times in *ex-ante* interviews, but none in *ex-post* interviews. This result is consistent with the social learning generated about the first empirical policy belief: given that support for food distribution as it is currently conducted fell among participants, so too did the support for the food recovery processes that sustain them.

Empowerment

Design principles of participatory research, including the Merging Knowledge approach, often pay explicit attention to the power relations embedded in the research process and in the social interactions of heterogeneous actors. A critical stakeholder analysis of the actor groups or individuals involved in such a research process tends to distinguish between participants based on their "power over" others or, less negatively connoted, according to their "power to". (Allen 1998). The former refers to the direct and hidden influence of actors over other actors, structures and discourses, i.e. the power that influences ideas, norms, perceived solutions, etc., whereas the latter is the capacity of individual actors to shape processes, or the agency of individual actors and their capacity to act. "Empowerment" usually refers to the enhancing an actor or group of actors' "power to". In the FAWA project, we tested this sense of empowerment as expressed by each participant prior to and following the five transdisciplinary workshops, in order to test whether we could identify a trend: are participants more or less inclined to feel empowered after having participated in a collective research project? Which participant groups demonstrate the largest change, if any?

A preliminary analysis of interview responses revealed a third type of power: the "power with", that is, the collective capacity to act for the attainment of a common or shared end or series of ends. More specifically, Allen considers the end or series of ends to be a shared or common purpose of overturning a system of domination. When asked whether they felt that they had the means/power to influence or improve food assistance policy (e.g. through their knowledge and experience), participants responded with regard to intensity but also based on the dimension of power: some referred specifically to collective empowerment (for example: "*Yes, it is always possible to change, but not on my own. There has to be several of us.*" (Activist, ex-ante interview)), while others interpreted the question as relating to individual "power to" (*I don't think I can have a real influence. If I wanted to, I think it would be possible, yes. It could be interesting.*" (University researcher, ex-ante interview)). For most participants in the FAWA project, answers to this question changed between the start and the end of the research process, as illustrated by a comparison of responses to the ex-ante and ex-post questionnaires.

As shown in the Annex 7 Table 8, collective empowerment increased over time within the participant group. When calculated separately per peer group, the difference can be accounted for mainly by the group of practitioners, who expressed much stronger beliefs about having the power and means to collectively influence food assistance policy in comparison with their initial feelings, prior to the workshops. Interestingly, individual empowerment was weakened in the course of the process for some participants (e.g. particularly university researchers), who remained consistently or became increasingly skeptical about their potential individual power to change the situation, but their ideas concerning the group's (or other groups') collective capacity to act were strengthened.

Additional outcomes include the integration of the research results into various arenas of civil society. The report was distributed widely among food assistance charities and associations, schools for social workers and public authorities. It fed into a debate about the future of the European Fund of Aid to the Most Deprived (FEAD) and was analyzed by a class of future social workers. It is more difficult to estimate the impact of the societal outcomes produced.

Conclusion

This paper sought to assess the current dominant pathway to tackling food insecurity (i.e. the conventional food assistance system) based on criteria that go beyond basic needs to consider a broader understanding of well-being. Using the results of a transdisciplinary, participatory project titled *Food Assistance: What Alternatives?* (FAWA), we evaluated the dominant pathway according to five dimensions identified by the Voices of the Poor research in 2000, as well as an additional criterion of interpersonal justice. We found that the dominant pathway achieves a low score in the following areas: bodily well-being (healthy and strong body), social well-being (self-respect and dignity), freedom of choice and action, and interpersonal justice. The dominant pathway achieves a moderate score on the remaining two dimensions: material well-being (food distribution) and security (personal physical security).

Secondly, we found that alternative pathways can modify the given scores we attribute to those dimensions. We explored three of these alternative pathways, namely the distribution of food vouchers, improved logistics of the current dominant pathway (i.e. to achieve more efficient food recovery and food assistance distribution) and a combination of peer-to-peer food-sharing within the conventional food assistance system. These ideal-typical pathways

were found to improve, for instance, material well-being by increasing volumes of food distributed, or to enhance freedom of choice and action by removing eligibility criteria or improving users' choice through vouchers. However, none of the alternative pathways were suitable for improving interpersonal justice. In other words, given these constructed alternative pathway ideal types, none of them would serve to guarantee that i. users receive their fair share of food and ii. that they have a given a voice in the system or the relationships that constitute it.

Thirdly, we analyzed interviews conducted prior to and following the FAWA project to identify the social learning and empowerment that was generated among participants. Initial, exploratory results show that social learning (in the sense of Reed et al.) was generated, albeit to different degrees depending on peer groups and on the policy beliefs addressed. For example, in the question related to eligibility criteria, activists generally did not modify their preference for basing eligibility criteria on discretionary income. Conversely, practitioners were largely in favour of eliminating eligibility criteria altogether when discussing the issue in *ex post* interviews. Section 5 explains this paradox by pointing out that although there may be a convergence in the diagnosis (i.e. that verifying a user's personal data to establish whether he or she fulfills all eligibility criteria may be a violent and degrading experience for the user), solutions may diverge among participant groups. Concerning policy beliefs related to improving access to healthy food for all, a clear result shows that participants moved away from an approach based on improving the education of consumers and raising awareness, to collective solutions such as grassroots social innovations and social economy initiatives.

Finally, the analysis concerning empowerment shows that participants were strengthened in their collective empowerment ("power with"), but not necessarily in their perceptions of individual agency or influence ("power to") following the end of the FAWA research process. As a result, and more broadly, we can conclude that transdisciplinary processes allow for the participatory evaluation of public policies in such a way that fosters social learning, generates collective empowerment, and reaches new findings and results compared to traditional, technocratic evaluative practices.

Beyond these results, the paper opens the way for further research. In terms of methodology, despite the promising approach of measuring social learning through *ex ante* and *ex post* interviews, further research is required on a larger number of participants to obtain more robust and precise results. Secondly, more (transdisciplinary) research should be carried out to identify alternative pathways to the traditional food assistance system that would improve all six criteria identified, *including* interpersonal justice (i.e. getting one's fair share and having a voice). This was a clear finding of the FAWA project: any initiative aiming to improve the food security of impoverished individuals or households must include the voice of users. As in research, policymaking that relies on technical and technocratic approaches will inevitably contain blind spots and injustices that perpetuate the violent and degrading situations experienced by users involved in the current dominant pathway.

Authors' Contributions   Not applicable.

Data Availability Not applicable.

Compliance with Ethical Standards

Conflict of Interest The author declares having no conflict of interest.

Code Availability Not applicable.

Annex 1

Table 4 Coding criteria for dominant and alternative pathways

Dimension of well-being	Sub-dimension	Low score	Medium score	High score
1. Material well-being	Food	**"Skip meals"** The pathway does not allow those who need it to have access to enough food assistance all year/month long; it means sometimes they go hungry or have to skip meals.	**"Rarely hungry"** The pathway allows those who need it to have access to food assistance at some/most times of the year/month; it means they are rarely hungry or skip meals.	**"Three meals a day"** The pathway allows those who need it to have access to food assistance at all times of the year/month, it means they never go hungry and that they have access to three meals a day.
2. Bodily well-being	Healthy and strong body	**"Poor quality"** The pathway allows users to have access to food assistance that is unhealthy, not nutritious and of poor quality.	**"Somewhat healthy"** The pathway allows users to have access to food assistance that is somewhat healthy and nutritious, and of medium quality.	**"Healthy and nutritious"** The pathway allows users to have access to food assistance that is healthy, nutritious and of high quality.
3. Social well-being	Self-respect and dignity	**"Subservience"** The pathway does not allow users to have access to food assistance in a way that does not put them in a situation of subservience, humiliation or shame.	**"Some shame or humiliation"** The pathway allows users to have access to food assistance that puts them in a where they experience some shame/humiliation.	**"Dignity"** The pathway allows users to have access to food assistance in a way that does not put them in a situation of subservience, humiliation or shame.
4. Security	Personal physical security	The pathway does not allow users to have access to food assistance in a relaxed atmosphere with a	The pathway allows users to have access to food assistance in a somewhat relaxed atmosphere with	The pathway allows users to have access to food assistance in a relaxed atmosphere

Table 4 (continued)

Dimension of well-being	Sub-dimension	Low score	Medium score	High score
		high level of personal safety.	a moderate level of personal safety.	with a high level of personal safety.
5. Freedom of choice and action	Freedom of choice and action	The pathway does not allow users to have a choice and control over what, how, and when they eat. It does not allow them to help others, even if they want to.	The pathway allows users one, but not two of both elements: having a choice and control over what, how and when they eat; and allowing them to help others if they want to.	The pathway allows users to have a choice and control over what, how, and when they eats. It allows them to help others if they want to.
6. Fairness	Inter-personal	The pathway does not allow users to get their fair share of food, and does not give them a voice in the system or the relationships that constitute it.	The pathway allows users one, but not both of the two elements: getting their fair share of food and having a voice.	The pathway allows users to get their fair share of food and to have a voice in the system or the relationships that constitute it.

Annex 2

Table 5 Ex-ante interview questionnaire

1. According to you, what is the best approach or public policy for food assistance: a) distributing food directly? b) distributing food vouchers? c) increasing beneficiaries' minimum income so they can decide to buy food themselves? d) some other approach?
2. On which basis should beneficiaries of food assistance be selected? a) on the basis of income; b) on the basis of a multi-criteria assessment; c) through auto-selection (i.e. no criteria).
3. What changes or reforms would enable a better access for all to healthy food?
4. Do you feel that you have the means/power to influence or improve food assistance policy (through your knowledge, experience, etc.)?

Annex 3

Table 6 Ex-post interview questionnaire

1. How was your experience of the Merging Knowledge process that we have been involved in since November?
2. What has the process brought you? Have you noticed any learning that has changed your approach to food assistance since the start of the project? If yes, what kind of changes have you noticed (in solutions imagined, in your understanding of the problem, in your values, or other changes)?
3. Did you notice any changes among the other participant groups (in the solutions imagined, their understanding of the problem, their values, or other changes?)
4. According to you, what is the best approach or public policy for food assistance: a) distributing food directly? b) distributing food vouchers? c) increasing beneficiaries' minimum income so they can decide to buy food themselves? d) some other approach?
5. On which basis should beneficiaries of food assistance be selected? a) on the basis of income; b) on the basis of a multi-criteria assessment; c) through auto-selection (i.e. no criteria).
6. What changes or reforms would enable a better access for all to healthy food?
7. Do you feel that you have the means/power to influence or improve food assistance policy (through your knowledge, experience, etc.)?
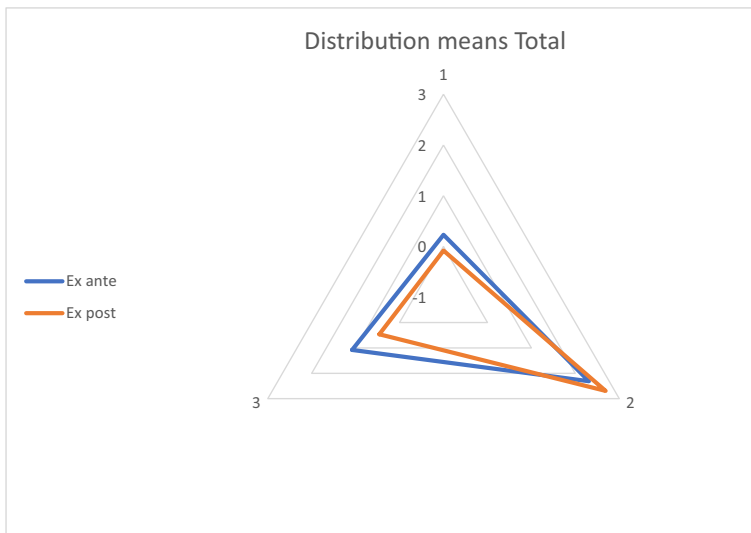
Annex 4

Fig. 1 Mean support for distribution options (in kind, in cash or vouchers) – all participants. Labels: 1 = In kind; 2 = In cash; 3 = Vouchers. Scores: −1 = opposed to this policy; 0 = did not mention / neutral about this policy; 1 = a little in favour of this policy; 2 = moderately in favour of this policy; 3 = strongly in favour of this policy

Annex 5

Table 7 Responses to ex-post interview (conditionality for accessing food assistance)

Peer group	Disposable income	Discretionary income	Unconditionality	Other	Reasons evoked in ex-post interview
A		X			- "The only criterion should be the discretionary income: what is left after subtracting rent and costs. These should be justified to social services once a year." - "Even if we'd like to, we can't get around it. Otherwise you have people who don't need help that get it." - "If you only look at revenue, there will be people who need help but won't get it because their income is too high."
P			X	X	- "No criteria (…) I think that criteria do more harm, because they demand an intrusion into the private lives of people, and so a certain violence." - "If we had no criteria, there would not necessarily be more people coming, but there would be a lot less violence." - "Ideally, I would say it should be self-selection, but I think we should have projects that evaluate this option in the long-term." - "If this kind of [unconditional access] exists, I want to make sure those who need it most can benefit." - "Ideally, it would be autoselection (…) but we don't have the means." - "Autoselection. It would work.."
U	X	X	X	X	- "I would see the food bank system as a system of last-resort, an emergency system. And if it is an emergency system, it should be open to everybody, without any restrictions, including migrants or persons that are not registered. I would favor the last option (no criteria), but of course it is not easy to manage." - There should not be criteria, in an ideal world. But if you work with public authorities, you will need to work on criteria (…) you could start with the most vulnerable, and broaden from there." - "I would be in favor of very flexible criteria determined by social workers, for example. It could be linked to a particular pre-existing status." - I would put a revenue threshold as a heuristic tool, and if you are below it, you have nothing to justify at all. (…)I think it would be good to have a automatized system, so that eligibility can be determined beforehand and so you would not have to bring any more documents."

A = Activists, P = Practitioners, U = University researchers (academics)

Annex 6

Fig. 2 Number of responses per policy option, ex-ante and ex-post interviews (on policies to ensure access to healthy food for all) – all participants. Legend: 1. Supply-side measures; 2. Demand-side measures (incl. Poverty reduction measures aiming at enabling individuals and households to purchase healthier and better-quality food; 3. Education, awareness-raising and spreading information; 4. Optimizing food recovery to enable more efficient matchmaking between unsold food products and food assistance schemes or other forms of food distribution. 5. Collective solutions include grassroots social innovations, social economy actors and collaborative economy organizations; 6. Reforming the current agro-industrial model 7. Broader societal change

Annex 7

Table 8 Mean responses collective vs individual empowerment – All participants

	Individual empowerment (mean)	Collective empowerment (mean)
Ex ante	0,3	0,8
Ex post	−0,5	1,58
Difference	**−0,8**	**+ 1,5**

Scores: *Individual empowerment* − 1 = not at all empowered (individually powerless): the respondent feels he or she is does not have any power or means to change the current situation by acting individually; 0 (neutral) = the respondent does not mention whether or not he or she has any power or means to change the current situation by acting individually; 1 (individually low empowerment) = the respondent feels her or she has little power or means to change the situation by acting individually; 2 (individually medium empowerment) =; the respondent

feels he or she has some power or means to change the situation by acting individually; 3 (individually high empowerment) = the respondent feels he or she has a lot of power or means to change the current situation by acting individually.

Collective empowerment: −1 = not at all empowered (collectively powerless): the respondent feels he or she does not have any power or means to change the current situation by engaging in a collective action - 3 (collective high empowerment) = the respondent feels he or she has a lot of power or means to change the current situation by engaging in a collective action.

References

Alkire, S. 2002. Dimensions of Human Development. *World Development* 30 (2): 181–205.

Allen, A. 1998. Rethinking Power. Hypatia vol. 13, no. 1 (Winter 1998): 21–40.

Arcuri, S., G. Brunori, and F. Galli. 2016. Insights on food assistance provision in high income countries: A systematic literature review. Conference paper for Welfare models and Varieties of Capitalism. The challenges to the socio-economic development in Italy and Europe.

ATD Quart Monde, FdSS, UCL. 2019. L'expérience de l'aide alimentaire. Quelle(s) alternative(s)? Rapport d'une recherche en Croisement des savoirs. Available at: https://atd-quartmonde.be/aides-alimentaires-quelles-alternatives-rapport-dune-recherche-en-croisement-des-savoirs/

Booth and Whelan. 2014. Hungry for change: the food banking industry in Australia. British Food Journal 116 (9). Available at https://doi.org/10.1108/BFJ-01-2014-0037.

Booth, S., et al. 2018. 'Sustainable' rather than 'Subsistence' food assistance solutions to food insecurity: South Australian Recipients' perspectives on traditional and social Enterprise models. *International Journal of Environmental Research and Public Health* 15 (10): 2086.

Carlson, S. and B. Keith-Jennings 2018. SNAP is linked with improved nutritional outcomes and lower health care costs. Center on budget and policy priorities, accessible at https://www.cbpp.org/sites/default/files/atoms/files/1-17-18fa.pdf

De Schutter, O. 2017. The political economy of food systems reform. *European Review of Agricultural Economics*: 1–27.

Deutsche Welle. 2019. Germany's 2018 unemployment hits record yearly low. Accessible at https://www.dw.com/en/germanys-2018-unemployment-hits-record-yearly-low/a-46957682

Directorate-General for Employment, Social Affairs and Inclusion (European Commission) , Fondazione G. Brodolini , Metis GmbH. 2018. FEAD Midterm Evaluation. Available at https://op.europa.eu/en/publication-detail/-/publication/bdb97849-48fb-11e8-be1d-01aa75ed71a1/language-en.

Dotson, K. 2011. Tracking epistemic violence, tracking practices of silencing. Hypatia, vol. 26, no. 2 (Spring, 2011) : 236–257.

Dowler and Lambie Mumford. 2015. How can households eat in austerity? Challenges for Social Policy in the UK. *Social Policy and Society* 14 (3): 417–428. Available at: https://doi.org/10.1017/S1474746415000032.

Fédération des Services Sociaux. 2019. Aide Alimentaire : Les protections sociales en jeu. Louvain-la-Neuve : Éditions L'Harmattan.

Ferrand, C. (Dir), P. Brun, M. Couillard, F. Ferrand, M. Lecorre, H. Lefeuvre, C. Reinhardt, and H. Guichart. 2008. *Le croisement des savoirs et des pratiques : Quand des personnes en situation de pauvreté, des universitaires et des professionnel.le.s pensent et se forment ensemble*. Paris: Les éditions de l'Atelier.

Finkelstein, A., and M. Notowidigdo. 2019. Take-up and targeting: Experimental evidence from SNAP. *The Quarterly Journal of Economics* 134 (3): 1505–1556.

Fricker, M. 2007. *Epistemic injustice : Power and the ethics of knowing*. New York: Oxford University Press.

Fritz, L., and C. Binder. 2018. Participation as relational space: A critical approach to analyzing participation in sustainability research. *Sustainability* 10.

Garthwaite, K. 2016. Stigma, shame and 'people like us': An ethnographic study of foodbank use in the UK. *Journal of Poverty and Social Justice* 24 (3): 277–289.

Gentilini, U. 2013. Banking on Food: The State of Food Banks in High Income Countries. IDS Working Paper volume 2013, number 415.

Greiss et al. 2019. Europe as agent that fills the gaps? The case of FEAD. Herman Deleeck Centre for Social Policy Working Paper. Available at: https://www.uantwerpen.be/images/uantwerpen/container2453/files/CSB%20WP%202019/CSBWorkingPaper1903.pdf.

Gunnell, J.G. 1982. The technocratic image and the theory of technocracy. *Technology and Culture* 23 (3): 392–416.

Hebinck et al. 2018. Capturing change in European food assistance practices: a transformative social innovation perspective. *Local Environment* 23 (4): 398–413. Available at https://doi.org/10.1080/13549839.2017.1423046.

Hick, R., and T. Burchhardt. 2016. Capability deprivation in the Oxford handbook of the social science of poverty. In , ed. D. Brady and L.M. Burton, 75–90. New York: Oxford University Press.

Hirsch-Hadorn, G., et al. 2006. Implications of transdisciplinarity for sustainability research. *Ecological Economics* 60 (2006): 119–128.

Hubert, H.-O., and C. Nieuwenhuys. 2010. L'aide alimentaire au cœur des inégalités. Louvain-la-Neuve : Editions L'Harmattan.

Marshall, et al. 2018. Transdisciplinary research as transformative space making for sustainability : Enhancing propoor transformative agency in periurban contexts. *Ecology and Society* 23 (3): 8.

Maslow, A. 1943. A theory of human motivation. *Psychological Review* 50: 370–396.

Matti, A., and A. Sandstrom. 2011. The rationale determining advocacy coalitions : Examining coordinating networks and corresponding beliefs. *Policy Studies Journal* 39 (3): 384–410.

Mitchell et al. 2015. Beginning at the End: The outcome spaces framework to guide purposive transdisciplinary research. *Futures* vol. 65: 86–96. Available at https://doi.org/10.1016/j.futures.2014.10.007.

Narayan, D., et al. 2000. *Voices of the poor : Can anyone hear us*. New York: Oxford University Press for the World Bank.

Poppendieck, J. 1998. *Sweet charity ? Emergency food and the end of entitlement*. New York: Viking Penguin.

Prilleltensky, I. 2011. Wellness as fairness. *American Journal of Community Psychology.* 49 (1–2): 1–21.

Reed, M., et al. 2010. What is social learning? *Ecology and Society* 15 (4): r1.

Riches G., Silvasti T. 2 ed. Palgrave Macmillan; London: 2014. First World Hunger Revisited: Food Charity or the Right to Food?.

Rittel, H., and M. Webber. 1973. Dilemmas in general theory of planning. *Policy Sciences* 4: 155–169.

Schlosberg, D., and D. Carruthers. 2010. Indigenous struggles, environmental justice, and community capabilities. *Global Environmental Politics* 10 (4): 12–34.

Sen, A. 1983. Poor, relatively speaking. *Oxford Economic Papers, New Series* 35 (2): 153–169.

Shapiro, Martin. 2005. Deliberative, "independent" technocracy v. democratic politics: Will the globe Echo the E.U. *Law and Contemporary Problems* 68 (3/4): 341–356.

Van der Wal, M., et al. 2013. Measuring social learning in participatory approaches to natural resource management. *Environmental Policy and Governance* 2013.

Wilkinson, R., and K. Pickett. 2010. *The Spirit level*. London: Penguin Books.