A Broader Conceptualisation of Fuel Poverty: Contributions from the Human Development Approach

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Fuel Poverty (FP) is commonly understood as the inability to afford the most basic levels of energy for adequate heating, cooking, lighting and use of appliances in the home. But, should this concept be limited to a lack of resources? What are the implications of being energy poor in terms of justice or freedom? What options that people value are being restricted? In order to answer these questions, the Human Development (HD) approach can be used; it understands development not only as an improvement of resources, but also as an expansion of people’s capabilities to choose the way they want to live. This article proposes a wider conceptualisation of FP on the basis of the HD approach, considering the following five development dimensions: Human Well-being and Security, Equity, Participation and Empowerment, Environmental Sustainability and Integrity regarding corruption. From this perspective, the impacts of FP on different social groups are analysed. This article is aimed at contributing to and promoting the debate surrounding the conceptualisation of FP in a wider framework, focusing on people’s freedoms.

Introduction

Fuel Poverty (FP) has historically been defined in the UK as “a household which needs to spend more than 10% of its income to maintain an adequate level of energy services (heat, light and appliances) in the home”, or as “the inability to afford adequate warmth because of the inefficiency of the home” (Boardman 1991: 219). The primary causes of fuel poverty are low incomes, high energy prices and energy-inefficient homes, and

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it has both human and environmental impacts (impacts on physical health, mental health, increased CO₂ emissions, excess winter deaths and others). However, this conceptualisation of FP is currently under debate, as it is considered that it does not reflect the full magnitude and complexity of the problem itself (Hills 2012: 38). In order to fill this gap, the Human Development (HD) approach can be used, since it understands poverty not only as a lack of resources but as a lack of freedom to achieve the life plans that a person has reason to value. This article is aimed at contributing to and promoting the debate surrounding the conceptualisation of FP in a wider framework, from the perspective of the HD approach. It focuses on the Spanish case, where the FP conceptualisation is still under construction. Hence, it is considered a perfect opportunity to contribute to research on this topic.

**Fuel Poverty Case Study: Spain**

In Spain, FP levels have increased in recent years. In 2010, around five million people spent more than the ten per cent of their monthly incomes on energy expenses and around 3.5 million people affirmed they could not maintain their households at a comfortable temperature (Tirado, López, and Martín 2012: 40). In 2012, the number of people who suffered these problems, who will be referred to as fuel poor people in this article, increased to more than seven million and around four million respectively. However, the Government has not defined specific plans or strategies to tackle this problem. Instead, several proposals from different political parties to reduce FP have been recently rejected. The Government understands this increase in FP levels as a consequence of the general economic crisis in which Spain is embedded. It can be understood from their discourse that they believe FP will automatically disappear when the general economic situation improves.

This discourse may be a consequence of the great influence that Spanish energy companies have on decision-making processes regarding the Spanish energy system. The Spanish energy market is controlled predominantly by five energy companies; according to data released in May 2013 by the Association of Renewable Energy Producers (APPA), “95% of the electricity generation in ordinary regime, 99.7% of the distribution and 79.5% of the commercialization are controlled by them. Hence, the
Spanish energy market is an oligopoly” (AEA 2013). Furthermore, the so-called ‘revolving door’ is a common practice, which stiffens the energy system against transformations that might negatively affect energy companies’ interests. In this context, citizens have reacted and social mobilisation has emerged. In the last two years there has been a significant increase in the number of individuals and institutions (for example NGOs, social services, mobilised citizens, social institutions and energy cooperatives) that are leading the process to construct an informed and active mass movement to demand a shift towards more just energy regulations and more accountable decision-making processes. Thus, FP is not a hidden problem for Spanish society any more.

**Theoretical Framework: Human Development Approach**

The concept of Human Development (HD) is considered as one of the main contributions to the debate on the development field (Dubois 2006: 53). It was coined for the first time by the United Nations Development Programme (UNDP 1992: 18) but it has also been enriched by other important academic researchers’ work, such as: Chambers (2005); Sen (1979, 1990); Nussbaum (2000); Alkire and Foster (2009); and Deneulin and Shahani (2009). From this paradigm, it is considered that economic growth does not have to be the main objective of a development intervention. Instead, it highlights the value of human capital. In this sense, the Human Development approach explicitly places the centre of the concept of development in the process of expanding people’s capabilities so that they can choose their way of life. From this logic, the concept of ‘capability’, proposed by the economist and Nobel Prize winner Amartya Sen, is understood as “the combination of freedoms or valuable options from which one can choose, so as to live a valuable life” (Sen 1998: 12). Therefore, the dominant development vision focused on the production of goods is replaced by another one focused on expanding people’s capabilities.

This approach has been included in the Human Development Reports elaborated by the UNDP, which have been published yearly from 1990, and have been a reference in the

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2 “Revolving door” is understood as the phenomenon whereby senior politicians are hired by energy companies after leaving politics.
current debate concerning development. In these reports, it is defended that development cannot be uniquely measured in terms of GDP per capita (as it is proposed in World Bank reports), directly linking development with economic growth. Instead, HD is defined from a wider perspective:

*Human development is much more than the rise or fall of national incomes. It is about creating an environment in which people can develop their full potential and lead productive, creative lives in accord with their needs and interests. (...*) Development is thus about expanding the choices people have to lead lives that they value. (UNDP 2001: 9).

The most common dimensions of the HD approach are those proposed by the UNDP, which are: 1) empowerment, understood as the expansion of the capabilities of people (real opportunities to find valuable ends) and participation; 2) the equitable distribution of basic skills; 3) sustainability, understood as the preservation of the same level of welfare for future generations, and 4) the security of people to enjoy their opportunities and achievements (Boni and Des Gasper 2011: 103).

In this article the seven dimensions proposed by Penz, Drydrik and Bose (2011: 187) are used, as the authors consider them to comprise a more complete approach. These seven dimensions have come to frame debates concerning development over the past 50 years. These dimensions affect how we may answer the question ‘what must development be, for it to be worthwhile?’. They are: 1) human well-being and security; 2) equity; 3) participation and empowerment; 4) cultural freedom; 5) environmental sustainability; 6) human rights; 7) integrity regarding corruption. This list also implies seven ways in which development can go wrong: by damaging or failing to enhance human well-being or security, by being inequitable, by being disempowering, by diminishing cultural freedom, by being environmentally unsustainable, by failing to uphold or enhance human rights, or through corrupt practices (Penz, Drydrik and Bose 2011: 188). The dimension related to ‘cultural freedom’ is not considered here, as the authors could not gather enough evidence to discuss how FP is affecting it. Moreover,
the human rights dimension is not reflected either, as the authors consider this dimension to be transversal in the analysis of the other dimensions.

Methodology
The current study is based on an interpretive epistemology which assumes that "reality cannot be observed but it has to be interpreted" (Corbeta 2003: 19). From this perspective, researchers had to be close to the situation in order to explore how FP affects those directly linked to the problem.

Evidence has been obtained through different qualitative techniques. First, a wide literature review on the issue of FP has been done from different fields (using academic papers, public policies, interviews and news on media). Second, the participant observation technique has been employed, so as to "perceive the activities and people's relationships in the field study, using the five senses of the researcher" (Angrosino 2012: 26). Third, semi-structured interviews have been carried out in order to explore how FP is affecting fuel poor people. Finally, the discourse analysis technique has been used on different documents, manifests, declarations or media interviews. Stakeholders involved in this investigation have been classified in four groups: fuel poor people who are suffering the problem; the Government, which is responsible for the definition of new policies; Spanish energy companies, which constitute the energy market; and social mobilisation, which has contributed to make FP visible.

The analysis has been structured around the five HD dimensions explained above: Human well-being and security; equity; participation and empowerment; environmental sustainability; integrity regarding corruption. From these dimensions, it has been explored how different stakeholders understand, suffer, and tackle FP.
Figure 1: Qualitative techniques employed.

<table>
<thead>
<tr>
<th>Fuel poor people</th>
<th>Government</th>
<th>Main Companies</th>
<th>Energy</th>
<th>Active Citizenship and social mobilisation</th>
</tr>
</thead>
</table>
| • Participant Observation  
  • Semi-structured Interviews | • Discourse analysis  
  • Revision of Energy policies | • Discourse analysis | • Discourse analysis | • Participant Observation  
  • Discourse analysis |

Evidence

Table 1 below shows how FP is perceived and understood by the four different stakeholders selected. The evidence is interpreted and analysed using the aforementioned five dimensions of the HD approach.
Table 1: Evidence.

<table>
<thead>
<tr>
<th>Human Development Dimensions</th>
<th>Fuel Poor People</th>
<th>Government</th>
<th>Main Energy Companies</th>
<th>Active Citizenship and Social Mobilisation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Well-being and Human security</strong></td>
<td>They suffer in terms of capabilities deprivations: inability to enjoy a dignified household; to live in community; to receive a proper education; not to feel embarrassment.</td>
<td>Current policies are not focused on human well-being but on market logic.</td>
<td>Energy is understood as a resource/service, but not as a right.</td>
<td>FP is understood as a violation of the rights of citizens. They are working to highlight less visible issues related to well-being (exclusion, embarrassment).</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>Heterogeneity of vulnerable groups and their own needs are not being considered.</td>
<td>Social aids are not based on equity criteria. Fuel poor people have difficulties to access them.</td>
<td>Tariffs do not consider equity criteria.</td>
<td>Allusions to different vulnerable groups are included.</td>
</tr>
<tr>
<td><strong>Participation and Empowerment</strong></td>
<td>They are not participating in decision making processes.</td>
<td>Top-down Policy processes do not provide opportunities for citizenship participation.</td>
<td>There are no opportunities to debate and consider people’s opinions and needs in their strategies.</td>
<td>They are demanding bottom-up policy processes.</td>
</tr>
<tr>
<td><strong>Environmental Sustainability</strong></td>
<td>Use of inefficient technologies.</td>
<td>Energy policies are not being defined from an environmental sustainability perspective.</td>
<td>Renewable energies are not being promoted.</td>
<td>Explicit demands directly linked with environmental sustainability: energy savings, efficiency, renewable energies and energy sovereignty.</td>
</tr>
<tr>
<td><strong>Integrity Regarding Corruption</strong></td>
<td>They remain outside of the lobby process to denounce the “revolving door”.</td>
<td>A large number of cases where senior politicians were hired by energy companies after leaving politics.</td>
<td></td>
<td>They insistently denounce the cases of the revolving door between Government and principal energy companies.</td>
</tr>
</tbody>
</table>
Discussion and Recommendations

The previous analysis shows how FP is currently affecting the four stakeholders considered in Spain, regarding how fuel poor people are suffering it, how the Government is tackling it, how the main energy companies are reacting and how social mobilisation is demanding and promoting changes. The evidence has been gathered and interpreted based upon the five Human Development dimensions selected. As was explained above, regarding the way the HD approach understands poverty, the current FP definition can be considered narrow and limited, as it characterises FP solely in terms of temperature and income issues, but it does not include the lack of opportunities to live a dignified life in terms of mental health, physical health, eating, studying, etc. Some examples of this lack of opportunities are provided in the following discussion of the results using a multidimensional analysis of FP from a perspective focused on people's values.

Human Well-Being and Security

If FP is analysed from the ‘human well-being and security’ dimension, it is shown that fuel poor people are suffering the problem in terms of capabilities deprivations that prevent people from living a life that they have reasons to value. Some of these deprivations are related to the capability to live a healthy life, which is reflected in the worsening of some chronic diseases or in the inability to be adequately nourished or to buy medicines, due to the fact that such a high proportion of their income has to be spent in energy services. Since it is difficult for them to have a healthy bodily integrity, they are unable to move freely from place to place, to play or to run. In the case of children, for example, it could be interpreted that one consequence of FP is that it does not enable a child to live the infancy that he or she wants to live. This is reinforced by the fact that children living in FP do not have the same opportunities to develop a proper formal education (at school or in the institute) since they are not able to study or do homework at night, due to the fact that they cannot use electricity as much as they need.

Another example of these deprivations is the inability to live in a dignified home, as there are leaks and humidity stains on the walls, which contribute to building degradation, and people live in a dark atmosphere most of the time. This problem turns
into social exclusion, isolation, or feelings of embarrassment and humiliation when friends or family members are visiting them at home. This can be understood as the deprivation of the capability of affiliation, which is to live in a community or to be engaged in any form of social interaction. Social isolation is one of the main reasons why FP might be invisible in society. This invisibility is heightened for the middle class, whose members had never been considered as poor people before the economic crisis. In this context, it has been social mobilisation, which understands FP as a violation of citizens' rights, which has helped to highlight these less visible issues (exclusion, feelings of embarrassment and humiliation) related to the dimension of well-being and security. However, energy policies are not defined through this logic, since they are not focused on people's development but on economic market development. As mentioned above, the current Spanish Government has not still recognised the problem, since it considers the phenomenon to be one more sign of the current economic crisis in the country that will be solved once employment generation is activated. Hence, their efforts are not focused on the development of policies to alleviate FP, but rather on the promotion of employment.

The five main energy companies do not consider FP as a problem itself, since they consider poverty to be a general issue which is not specifically caused by a lack of energy. In this sense, they understand energy as a resource to trade, but not as a right. They argue that they are offering a service, and their customers have to pay for it. Hence, they believe that the Government is the only institution responsible for watching over citizens’ welfare, and they fail to contribute to the alleviation of this problem as they are private companies which are solely aimed at maximising their own benefits. Nevertheless, energy companies should be engaged as important stakeholders in the fight against FP. Corporate responsibility should look for global human well-being, thus plans or strategies to alleviate FP should be implemented by these companies.

*Equity*

The interpretation of the situation through the ‘equity’ dimension enables us to affirm that the current conceptualisation of FP is inequitable, since heterogeneity of vulnerable groups and their own needs are not being considered. ‘Vulnerable groups’ is a
A BROADER CONCEPTUALISATION OF FUEL POVERTY

commonly used term to address mainly elderly, children and disabled people (Walker and Day 2012: 72). However, from an HD perspective, which is focused on individuals' values, this association means that equity is not being considered, since each collective has some specific needs and values. Some allusions to different vulnerable groups are uniquely included in social mobilization discourses.

Social aids promoted by the Government³ are not based on equity criteria either, and are specially thought to benefit people who are in a deep social exclusion situation. Thus, most fuel poor people have difficulties in accessing these aids, especially the middle class, who have recently begun to have problems paying their energy bills. Moreover, the energy tariff is not calculated from an equitable perspective, since it benefits users with higher consumption rates (who usually have high economic resources), but not fuel poor people who need discounts on energy prices more urgently. Hence, the Government should redefine the regulations for access to social benefits and the energy companies should establish fairer energy tariffs. If these changes occurred, FP rates would be substantially reduced.

Participation and Empowerment

Regarding the 'participation and empowerment' dimension, no evidence of open spaces for citizenship participation has been found. From the HD approach, this might be understood as a deprivation of the capability to control and effectively participate in political decision-making processes that affect one's life. In this context, social mobilisation is actively demanding bottom-up policy processes to define norms and regulations that take the opinion of the most vulnerable people into greater consideration through different actions.⁴ Fuel poor people, however, are not aware of this demand for spaces, since they are not experts on energy issues. In consequence, they are not participating in political processes. To overcome this barrier, an informed and critical mass movement should be constructed. Whether this informative role is

³ For example, an economic aid called “social bonus”, which consists on a discount on electric bills. However, this only applies to the following collectives: old age pensioners with low income; large families; and families with all their members unemployed (CNMC n.d.).

⁴ Such as: demonstrations, manifestos, visits to representatives of all political parties, conferences, a TV documentary and signatures collections (Lillo and Pellicer 2014).
currently played by social mobilization, the Government should be deeply involved in this process.

Environmental Sustainability

The analysis from the ‘environmental sustainability’ dimension agrees with prior analyses (EPEE 2009; Ürge-Vorsatz and Tirado 2012: 1; Tirado et al 2014: 12) that FP has a direct impact on climate change. This is mainly due to the fact that fuel poor people tend to resort to the use of inefficient technologies for heating and lighting, such as coal or firewood. Furthermore, energy policies that enhance environmental sustainability are not being promoted. For example, the promotion of renewable energies is being restricted by several laws approved in the last two years, and consequently the Spanish energy system remains dependent on fossil fuels.

In this context, most of the demands of social mobilisation are directly linked with this dimension, and there is a strong argument that FP is a consequence of an unfair, inequitable and unsustainable energy model. Some changes, such as reducing the dependence on foreign fossil fuels or offering credits to encourage users to be energy generators through small-scale renewable energies, would greatly enhance environmental sustainability in Spain.

Integrity Regarding Corruption

Finally, in relation to the ‘integrity regarding corruption’ dimension, an indirect relationship between the problem of FP in Spain and integrity regarding corruption between the Spanish Government and the main energy companies has been identified. It has been demonstrated that there are a large number of cases (at least forty three have been identified) where senior politicians have been hired by energy companies after leaving politics (El Mundo 2014). This suggests that large energy companies constitute a lobby that has great influence on Government law and regulation.

5 Some examples are: Real Decreto Ley 1/2012 declares an indefinite moratorium on new RE systems, the Law 15/2012 fixes new taxes on the value of electricity production, and the Real Decreto Ley 2/2013 removes the economic incentives of the Special Regime (RE and cogeneration). This regulatory framework has made investors stop promoting new RE systems (Lillo and Pellicer 2014).
The price of energy has greatly increased in the last decade in Spain, and social mobilisation argues forcefully that this is the main cause of the substantial increase in FP levels in recent years. The Spanish Government and the big energy companies have been criticized as the institutions that are ultimately responsible for this problem. The revolving door between Government and principal energy companies has been seriously criticized, and demands have been made that the Government must not allow continuous increases in energy prices, which are perceived as unfair. However, no major changes have been identified, as policy definition processes are greatly influenced by the energy lobby.

**Conclusion**

This paper contributes to the conceptualisation of FP by providing more arguments and reasons that demonstrate the importance of the problem and how urgent it is for decision makers to define new policies and plans. In order to do this, the HD approach can be used as it provides enlightening elements of analysis with which to conceptualise the phenomenon and explicate the magnitude of the problem from a perspective focused on expanding people’s capabilities. It has been suggested that FP is part of a broader social and environmental injustice where people do not have the freedom to choose the life they want to live. As FP means a lack of opportunities to live a dignified life, it is proposed that the definition of FP should incorporate elements referring to issues like justice, rights, participation, equity and sustainability. Finally, it has been shown that there are different perceptions and interpretations of fuel poverty in Spain: fuel poor people suffer the problem in terms of capability deprivation, and they are usually not aware of their rights; active citizenship interprets the problem in terms of justice and rights; the Spanish Government considers FP as a consequence of the current Spanish economic crisis which will be solved once unemployment rates decrease; and energy companies understand this phenomenon from the logic of the market.
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