Original article

Social perception of unconventional gas extraction on the outskirts of a former coal-mining area in Northeast France

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A R T I C L E   I N F O

Article history:
Received 21 July 2016
Received in revised form 20 December 2016
Accepted 20 December 2016
Available online xxx

Keywords:
Social acceptance
Social representation
Unconventional gas
Coal mining
Economic revival

A B S T R A C T

The elements that influence the social acceptance of subsurface resource exploitation are analysed for a project engaged in unconventional gas production in Lorraine, a former mining area of France which now has strong unemployment. Champions of this project portray it as an opportunity to revitalise the economy in this hard-pressed region. Yet, social acceptability remains a key issue, particularly among people who live at the edge of the former mining zone and are not familiar with underground resource extraction. We examine the “social representations” of the population as well as investigate the roots of the contrasting representations we found in terms of the “distance to the object” concept that we introduce. We conclude that social acceptance must be considered both in terms of spatiality (distance) and temporality (historical).

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1. Introduction

Feasibility studies for underground resource extraction projects (mining, quarrying, drilling for liquid or gaseous hydrocarbons, etc.) are increasingly less restricted in terms of technical, economic and legal factors. These studies also increasingly seek to evaluate projects' social acceptability, particularly among the surrounding population, as popular opposition can sometimes be a major obstacle to successful project implementation (Bergeron, 2013; van der Voort and Vanclay, 2014). Yet, the assessment of acceptability seldom extends to an assessment of why there may or may not be a “social licence to operate” (Thomson and Boutilier, 2011), or to a comparison of the favourable or unfavourable views of stakeholders (so-called social representations). Feasibility studies are thus too often conducted on a case-by-case basis, with no real analysis of the mechanisms that favour or impair project acceptability.

The production of unconventional gas, such as shale gas, is usually associated with extensive drilling and generally requires the use of hydraulic fracturing (“fracking”). It is a well-documented example of a natural resource exploitation that generally suffers from negative social perceptions. In France, for example, shale gas projects have been strongly criticised (Chailleux, 2015), and a law banned the fracking technique in 2011. The generally negative public perception of such projects may be explained by the fact that most unconventional gas projects are implemented in “virgin” rural areas, free from any industrial history, where this new activity may be detrimental to previously existing activities such as farming, fishing, tourism, and so on. There is considerable critical social science literature on fracking (for example, Davis and Hoffer, 2012; Hudgins, 2013; Pearson, 2013; Perry, 2012) which describes, using various case studies spanning the globe, the social and cultural impacts of industrialization on rural communities (Hudgins, 2013; Pearson, 2013; Perry, 2012; Simonelli, 2014: Willow, 2014; Sneegas, 2016), as well as the economic costs and benefits of fracking (Barth, 2013; Christopherson, 2011).

Studies regarding the impact of unconventional gas projects on “non-virgin” areas are far less frequent, with the noticeable exception of work by Theodori (2009) and Anderson and Theodori (2009) on Barnett Shale, Texas. The present paper analyses a

http://dx.doi.org/10.1016/j.exis.2016.12.006
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project to drill for coalbed methane (CBM) in the Lorraine region of Northeast France, a former coal-mining and industrial area that today suffers strong unemployment issues. CBM exploitation in Lorraine does not require fracking because coal veins are naturally permeable, contrary to “shale”. Promoters of this project present it as an opportunity to revitalise the economy in this economically hard-pressed region. However, people who now live at the edge of the former mining zone, where the CBM drilling is slated to occur, are not familiar with underground resource exploitation techniques and have expectations that strongly differ from those of the region’s former miners who were proud of contributing to the nation’s economy.

We investigate whether such a specific historical, geographical and economical context favours or hinders the social acceptance of unconventional gas exploitation. To do so, we take a classical approach to social representations (Abric, 2001; Farr and Moscovici, 1984; Jodelet, 1989; 2002; Moliner, 1998), which is explained hereafter, to develop a methodology that can be applied
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