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Framing 'Green Jobs' Discourse: Analysis of Popular Usage

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ABSTRACT

The emerging concept of Green Jobs has yet to be clearly defined. This study uses critical discourse analysis and framing theory to analyse the meaning of Green Jobs claims, and their representation and transformation. Based on an analysis of print media from 1999 to 2009 and supporting policy documents, five predominant frames were identified in Green Jobs discourse: Environment–Economy Bridge, Green Entrepreneurship, Nascent Industry Creation, Internal Industry Transformation, and Structural Adjustment. Coverage of Green Jobs discourse has sharply increased since 2008. Although the term remains loosely defined and is employed in multiple ways, it is predominantly used as a strategic link between the recession and climate change policy. The fractured framing used in Green Jobs discourse hinders its uptake as a meaningful concept informing job creation, greening of industry, and sustainable development policy. Media, policymakers and advocacy groups should clarify the underlying definition when using the term. Copyright © 2012 John Wiley & Sons, Ltd and ERP Environment.

Keywords: environmental policy; frames; Green jobs; stakeholder engagement; sustainable development

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Introduction

The potential for job creation and business opportunities in the environmental goods and services sector, and particularly in the transition to a low-carbon economy, is of increasing interest to governments, the private sector, think tanks, and advocacy groups. The popular debate on the relationship between employment and environmental legislation has crystallised around the concept of 'Green Jobs'. Diverse groups of actors, including the United Nations, national and regional governments within the UK, Germany, Denmark and the US, business organizations, international trade unions, and environmental advocacy organizations, have harnessed the Green Jobs motif (Government of Scotland 2005; Dupressoir 2007; Green New Deal Group 2008; Pollin, Heintz et al. 2008; Confederation of British Industry 2009; UK Government 2009; Worldwatch Institute 2009).

The 'narratives' attached to different concepts can impact their uptake and implementation, particularly in cases where new terms are introduced (Soderbaum 2009). While the term Green Jobs became increasingly popular throughout 2008 and 2009, it is by no means clearly defined or well understood (Saner 2008). Broad economic analysis of environmental policies frequently considers employment changes and industry transitions (McEvoy, Gibbs et al. 2000; Stern 2006; Bezdek, Wendling et al. 2008; Fankhauser, Sehleier et al. 2008; Pearce and Stilwell 2008; Roland-Holst 2008). This body of academic work does not always directly use the language of Green Jobs but addresses job creation impacts nonetheless. A different set of literature considers Green Jobs, or Environmental Jobs, directly from an environmental protection perspective, and looks beyond the climate change issue to the whole environmental sector (Thomas, Lane et al. 2007; Bezdek, Wendling et al. 2008; Becker and Shadbegian 2009).

These academic treatments highlight the difficulties in defining the concept of Green Jobs and its various inherent contradictions. On a general level, Green Jobs can refer to i) the content or activities of a job, and/or ii) the direct and indirect job creation as a result of broader policies with environmental goals. Furthermore, there are some controversial elements of Green Jobs claims. Should all forms of alternative energy and their supply chains be included? Should it expand beyond the energy sector (Pearce and Stilwell 2008)? Should the tourism industry be included? Should the

nuclear industry be included? These issues continue to be contested (Bezdek, Wendling et al. 2008; Pearce and Stilwell 2008). Often, the concept of a '*Green*' Job cannot be extricated from the type and motivation of government policies that may have created these job opportunities. Providing an understanding of Green Jobs claims requires illustrating the processes at work and the actors involved, and perspectives and definitions vary widely (Pearce and Stilwell 2008).

While these academic treatments are important, they represent only a fraction of the ongoing research about Green Jobs. Other than a limited number of academic articles, Green Jobs literature is predominantly published in non peer-reviewed reports by a range of actors, including governments and advocacy organizations. A review of documents and reports in the grey literature reveals a varied range and perspectives on Green Jobs, with no consensus on a common definition. A report commissioned by the United Nations Environment Program and the International Labour Organization includes both direct and indirect employment within climate, energy and the wider environmental sector in their definition of Green Jobs. The UNEP report defines Green Jobs as:

Work in agricultural, manufacturing, research and development (R&D), administrative, and service activities that contribute(s) substantially to preserving or restoring environmental quality. Specifically, but not exclusively, this includes jobs that help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through high-efficiency strategies; de-carbonize the economy; and minimize or altogether avoid generation of all forms of waste and pollution.

(Worldwatch Institute, 2009: 2)

The range of definitions demonstrates that multiple actors are increasingly using Green Jobs in reference to various processes implicated in the transition to a sustainable economy. Green Jobs can refer to specific roles and the supply chains in environmental goods and services and low-carbon industries, but can also include any positive effects on employment, both direct and indirect, from macroeconomic policies designed with an environmental purpose, such as national plans to reduce greenhouse gas emissions (Stern 2006; Bezdek, Wendling et al. 2008; Fankhauser, Sehleier et al. 2008; Pearce and Stilwell 2008). The variety of perspectives proves that Green Jobs discourse has yet to be settled, and it is expected that different groups will attempt to shape the definitions of Green Jobs to suit their existing viewpoints and perspectives. Given the dearth of scholarly work on Green Jobs, this study provides a qualitative assessment of the term from which subsequent studies can profit.

2. Analytic approach

This study uses discourse analysis to determine different perspectives on Green Jobs. Developments in environmental discourse depend on the specific social construction of environmental problems, with various contexts determining what can be said meaningfully (Hajer 1995). Frequently, the state of transition between one dominant mode of thought and the acceptance of a new paradigm is tenuous and contested. Many terms, such as 'Sustainable Development' are dynamic and continue to transform with use (Skillington 1996). As actors seek to link previously disparate claims, a new definition of a specific policy problem is formed. The complex and uncertain process that accompanies the introduction of new 'narratives' through the media is demonstrated by numerous studies (Ladle, Jepson et al. 2005; Boykoff 2007; Carvalho 2007; Doulton and Brown 2009; Russil and Nyssa 2009).

Together, the producers and consumers of media texts are engaging in meaning-making activities (Carvalho and Burgess 2005). Understanding whether Green Jobs have entered into the realm of 'public knowledge' through the media is an important first step in assessing its scope. This study attempts to explore the meaning-making process around Green Jobs from the perspectives of the different groups that have entered the discussion, while recognizing that meaning-making in the public-domain is invariably a process of joint production contingent upon gatekeepers such as reporters and the newspaper editorial process (Boykoff 2008).

We used frame analysis to deepen our understanding of the multiple perspectives encountered. The way in which issues are framed is critical to how they will be discussed and perceived, and who will find them relevant (Benford and Snow 2000). Frames are the result of a natural cognitive process of information editing and retrieval which establishes familiar patterns and paradigms (Johnston 1995; Miller 2000). Frames can influence the terms of participation, the range of policy options and the nature of the political debate (Miller 2000). Multiple authors point to how these processes can result in negotiated or shared meaning of certain issues and represent 'collective moral choices' (Benford and Snow 2000; Miller 2000; Taylor 2000). As detailed in the next section, this study adopted a two-part

methodology, first analysing the trends and content of Green Jobs coverage in the British print news media, then applying a frame-analysis supported by a sample of policy documents.

3. Methods

For part one of this study, we analyzed the Green Job coverage in the British print media. While it is geographically limited sample, the study is potentially informative internationally as the British media covers international topics. Like previous research of this nature, this study adopted both a *comparative-synchronic* analysis (comparing articles from different sources during the same time period) and a *historical-diachronic* analysis (comparing how treatment of issues changes over time in one source) (Boykoff 2007; Carvalho 2007; Boykoff 2008). There is a recent precedent of studying the cultural and ideological components of climate change discourse in British national newspapers, so this study builds upon the methods used in those articles. While Carvalho (2007) limited her analysis to the three broadsheets that constitute the British ‘Quality’ Press, Boykoff (2008) analyzed eight major national newspapers including both broadsheets and the tabloid news. Because of the larger range and diversity of readership and circulation, this study used the same, larger, newspaper sample as Boykoff (2008). The sample included all eight major national UK papers, in alphabetical order: 1) the *Daily Express* (and *Sunday Express*); 2) the *Daily Mail* (and *Sunday Mail*); 3) the *Daily Mirror* (and *Sunday Mirror*); 4) the *Daily Telegraph* (and *Sunday Telegraph*); 5) the *Times* (and *Sunday Times*); 6) the *Guardian* (and *Sunday Observer*); 7) the *Independent* (and *Independent on Sunday*); 8) the *Sun* (and *News of the World*). Survey methods involved a BOOLEAN search for the key words “Green Jobs” in the UK National Newspapers category in the Lexis-Nexis database during the period August 1st, 1999 – August 1st, 2009. A total of 310 articles were located through the search. Of these, 84 were excluded for irrelevancy or direct repetition², yielding 226 relevant articles.³

Our survey of UK national press coverage of Green Jobs was intended to test both the breadth of coverage over the last ten years, as well as explore the content of these stories. Both inductive and

² Referring to when repeat copies of one article were generated through multiple editions.

³ An additional search for related terms, such as ‘Green-collar workers’, was conducted but yielded similar results.

deductive methods were used to identify common trends in Green Jobs coverage (see Box 1). As illustrated in Box 1, the content analysis included seven main components: surface descriptors, key themes, dominant and secondary narratives, bias, types of green jobs discussed, and stakeholders referenced. This study tracked common themes that emerged from the articles and grouped them into categories and sub-categories. The narratives that emerged during the course of the analysis were: electoral politics, government intervention, labour and trade unions, the private sector, the recession, job creation, climate change, and the environment⁴. Given the complexity of the issue, these categorizations were not intended to be mutually exclusive, and they do overlap. Thus, while dominant narratives were identified for each article, additional narratives were included and tracked to provide a richer picture. Of interest were the perspectives voiced in the article by different actors, such as of trade unions, environmental groups, or political parties and individual politicians.

Box 1: Analytical framework for discourse analysis of newspaper articles

1. *Surface descriptors*: Specification of newspaper, author, date, page, section, word count, and title of the article.
2. *Key themes*: Primary topical content.
3. *Dominant narrative*: Primary perspectives voiced and broader context in which Green Jobs references were framed.
4. *Secondary narratives*: Other perspectives and context for framing of Green Jobs.
5. *Bias*: The opinions and attitudes expressed towards Green Jobs.
6. *Types of Green Jobs*: The kind of Green Jobs discussed.
7. *Stakeholders*: Specific individuals and groups referenced in articles.

Adopted from Doulton and Brown (2009).

The second part of the methodology involved a frame analysis of the print media, supported by the content of policy documents. Definitions and perceptions of Green Jobs were explored through content analysis of primary texts referenced in the print media articles and other supporting documents. These supporting documents were from a variety of actors, and included campaign platforms, think tank publications, position papers, and policy statements. Supporting documents were analysed, including 18 from government and political actors, 14 from economic think tanks and business or industry affiliated actors, 11 from environmental groups and coalitions, and 18 from trade union affiliated

⁴ The *narrative* was defined as the primary focus or foci of the story.

organizations⁵. These documents had a direct relevance to Green Jobs discourse, as quite often they were position papers that argued for a particular policy recommendation on the subject.

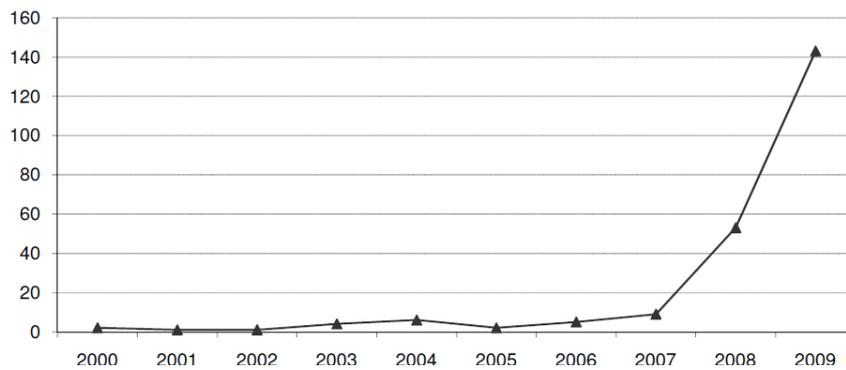
A second analysis was performed on the media results to cluster the range of definitions, perspectives and use of Green Jobs terminology into frames. Exploring the extent and content of these frames required interacting between the printed press, supporting policy documents and research literature. The resulting five major frames were: 1) Environment-Economy Bridge, 2) Green Entrepreneurship, 3) Nascent Industry Creation, 4) Structural Adjustment, and 5) Internal Industry Transformation.

4. Results - Green Jobs coverage in the British press 1999-2009

As illustrated in Figure 1, for the first seven years of the time studied the term Green Jobs was nominally used with only sporadic coverage of 1-5 articles per year. There was a small spike in 2004, primarily due to coverage of the Scotland Green Jobs Strategy, which was released that year. Beginning in October of 2008, coverage began to sharply increase, reaching a total of 53 articles by the end of that year. This increasing trend continued through 2009, with small peaks in January, March and April, and a large spike in July, the last month of analysis. During the first 7 months of 2009, over 144 articles cited Green Jobs.

Figure 1: Annual coverage of Green Jobs, August 1999 through July 2009

⁵ The list of supporting documents used for this paper is not an exhaustive treatment of what potentially exists, as we did not attempt to find and collate all documents written about Green Jobs. Rather, our effort was intended to explore different ‘camps’ on the issue through deliberate sampling, in order to identify some clearly defined position areas. Fairly rapidly, clear positions did begin to emerge and repeat themselves throughout multiple documents. It was at this point of ‘theoretical saturation’ (Wodak and Meyer 2009) that qualitative assessment of existing materials took priority over collecting additional materials.



Both the quantity and content of coverage changed significantly over the time period analysed. Several key discursive moments emerged, shaping how the term was being used and understood. A focus on ‘Careers’ was apparent early on, emphasizing Green Jobs as a lucrative niche within the private sector. Increase in Green Jobs coverage paralleled the increased media attention to climate change, which has been separately documented in several studies (Carvalho 2007; Boykoff 2008; Doulton and Brown 2009). On the policy side, from 2004 to 2006 the Scotland Green Jobs Strategy and The Stern Review on Climate Change also gained coverage and introduced Green Jobs as a macro-economic policy intervention during the transition to a low-carbon economy. In July 2008, the Green New Deal was first mentioned, following the release of a report by the New Economics Foundation. Recession coverage began in late August of 2008, coinciding with the huge spike in reference to Green Jobs. Throughout late 2008 and 2009, coverage of Green Jobs focused heavily on the recession and the nature of government intervention, developing a focus on job creation during the second half of 2009. Most recently, the release of the UK Low Carbon Transition Plan and the announced closure of the Vestas facility on the Isle of Wight, both in July 2009, gained significant coverage. In October 2008, Green Jobs emerged as a critical element of the Obama campaign platform in the United States and were covered in the British print media in that context. In a highly quoted speech, then Democratic Presidential Candidate Barack Obama promised the creation of millions of Green Jobs. The focus on Green Jobs remained after his inauguration as President and selection of key executive staff members who maintained the same policy platform.

To a certain extent, media discourse around Green Jobs began to become more self-reflexive as coverage continued and it emerged as a topical theme in its own right outside of the ‘careers’ discourse. In 2008, an article in the Guardian newspaper asked for a proper definition of the term Green-Collar (“What is a Green-Collar Job”) (Saner 2008). Continuing through 2009, articles began to focus on the term as a policy recommendation (still as an undefined term), from both a constructive and disapproving stance. Its universality was challenged in the Times newspaper in early January of 2009 (“Green light for a boom in jobs”) (Bartlett 2009). Questions of whether Green Jobs should include the complete supply chain were raised in the Times newspaper in July of 2009 (“Slipper makers and gas staff included in 1m Green Jobs 'sham'”) (Pagnamenta 2009). While the majority of coverage of Green Jobs was neutral, just under a third of the articles were positive, and only five articles out of 226 were critical of the concept itself. These included three articles by the same author, Christopher Booker at the Daily Telegraph, including one that warned against a focus on Green Jobs and combating climate change, as doing so would lead to ‘economic suicide’. News outlets began to point suspiciously to the concept’s ease of use and emotive power, and in April of 2009, an article in the Sunday Times warned 'beware Green Jobs, the new subprime’ (Lawson 2009). Table 1 outlines the attitude expressed about Green Jobs in the print media texts.

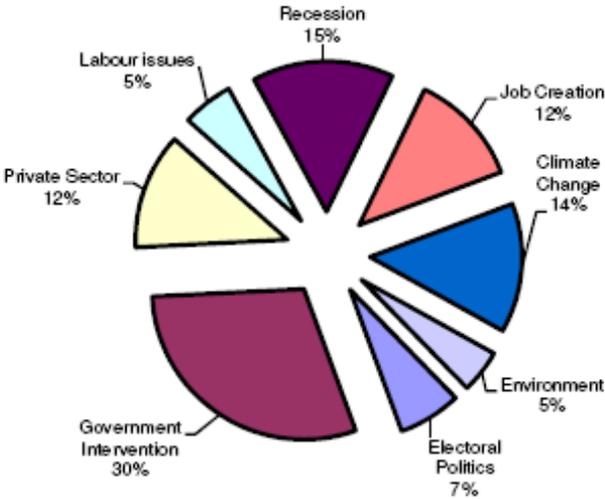
Table 1: Total bias and news format of Green Jobs coverage

| Bias | News Brief or Feature | Opinion Piece | Total Bias | Percent |
|-------------------|------------------------------|----------------------|-------------------|----------------|
| Neutral | 148 | 13 | 161 | 71.2% |
| Positive | 31 | 29 | 60 | 26.5% |
| Critical | 2 | 3 | 5 | 2.2% |
| Total Type | 181 | 45 | 226 | |

Narratives solely based on environment and climate change were not dominant in Green Jobs discourse. While Green Jobs were increasingly discussed in terms of economic policies needed in the transition to a low-carbon economy, the narrative of climate change was prevalent in only 14% of the

sample. Narratives from a labour perspective were also minor in comparison to other themes. Figure 2 displays the combined narratives.

Figure 2: ‘Green Jobs’ narratives *



Newspapers in Britain are known to represent different socio-economic strata, with clear differences in readership and circulation patterns between the ‘quality’ press and ‘tabloid’ news coverage (Boykoff 2008). It is interesting to note that over two thirds (71%) of Green Jobs coverage was in the ‘quality’ press, with the Guardian alone representing over one third (36%) of total coverage. Our study confirms conclusions reached in previous studies regarding the significant differences between the ‘quality’ press of broadsheets, and the ‘tabloid’ newspapers in terms of issue coverage (Carvalho 2007; Boykoff 2008)⁶.

Green Jobs frequently presented a political platform for high-profile proponents. A series of opinion editorials appeared in UK broadsheets, all positive, written by Prime Minister Gordon Brown and other members of the government. Ban Ki Moon, the Secretary General of the United Nations, made a speech on the Green New Deal⁷ with a specific reference to Green Jobs, which was covered in

* Black and white figures for print reproduction.

⁶ The category of quality or broadsheet newspaper includes *The Guardian*, *The Times*, and *The Independent*. *The Sun*, *The Daily Mirror*, *The Daily Telegraph*, *The Daily Mail*, and *The Daily Express* comprise the tabloid press,
⁷ Speech given at UNFCCC talks in Poznan, Poland.

the Times (Ki-Moon 2008). Several Trade Union Representatives wrote opinion pieces, as well as student union leaders. Prominent intellectuals also voiced their opinions on the issue.

5. Identifying common ‘Green Jobs’ discourse frames

We identified and tracked five frames that clustered within the different types of Green Jobs discourse. Bolstered by the literature review and content analysis of supporting documents, these frames reflect the varied underlying assumptions, claims, and actors associated with public discourse around Green Jobs. They emerge as distinct logical groups, while not being mutually exclusive. The related policy prescriptions range from free-market approaches to direct government intervention, and are accompanied by powerful underlying ideologies and assumptions about the role of the government vis-à-vis the market. They are presented below in order of frequency; 1) *The Environment-Economy Bridge (or General)*, 2) *Green Entrepreneurship*, 3) *Nascent Industry Creation*, 4) *Internal Industry Transformation*, and 5) *Structural Adjustment*. The following figure and tables summarize the results of our analysis. Figure 3 displays the distribution of articles across frames, while Table 2 details the actual results by year. Table 3 summarizes potential definitions, rhetorical idioms and motifs, normative judgements, and values for each frame. Following the table and figures, each frame is discussed in detail.

Figure 3: Distribution of media articles across five Green Jobs frames

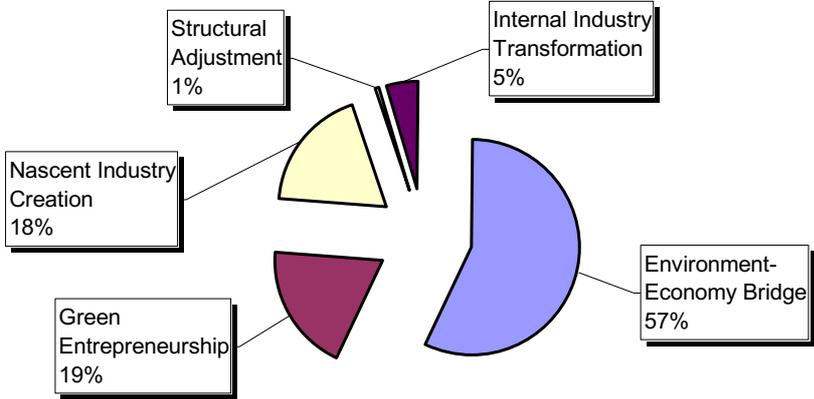


Table 2: Distribution of media articles by year across five Green Job frames

| Annual Totals | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Total |
|---|------|------|------|------|------|------|------|------|------|------|------------|
| Environment-Economy Bridge | 1 | 1 | 1 | 0 | 2 | 0 | 1 | 2 | 44 | 134 | <u>186</u> |
| Green Entrepreneurship | 1 | 0 | 0 | 1 | 1 | 0 | 4 | 4 | 8 | 43 | <u>62</u> |
| Nascent Industry Creation | 0 | 0 | 0 | 2 | 3 | 2 | 1 | 2 | 15 | 35 | <u>60</u> |
| Structural Adjustment | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | <u>2</u> |
| Internal Industry Transformation | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 3 | 1 | 7 | <u>15</u> |

Table 3: Summary of the five frames

| Frame | Definitions of Green Jobs | Sectors | Rhetorical idioms, arguments | Normative Judgements | Values |
|---|--|---|---|---|---|
| Environment-Economy Bridge | Any positive employment effect from government environment programs | Any sector | Win-win | Diverse | Diverse |
| Green Entrepreneurship | Careers and new ventures in environmental industries | Environmental sector only | Successful business case | Business leads and government should provide incentives | Entrepreneurship |
| Nascent Industry Creation | Jobs resulting from government-led job creation related to new environmental goods and services. | Environmental sector only | Green New Deal | Government should lead | Centralized leadership |
| Internal Industry Transformation | Jobs which work to reduce the environmental impact (or increase the environmental benefits) of organizations and individuals | Any sector | Every job is a green job; Every job can be less brown | Business should lead | Green business innovation; Stakeholder management; Greening of industry |
| Structural Adjustment | New jobs provided for employees of 'dirty' sectors which are being phased out due to new environmental legislation | Phasing out unsustainable industries and replacing them with environmental industries | Just Transition | Government should lead | Job Security |

5.1 Frame 1: The Environment-Economy Bridge

The first frame identified for Green Jobs discourse is the *Environment-Economy Bridge*. While it permeated almost all discussion of Green Jobs, this frame distinguished itself from the others by the absence of other details, content, and specifications. This frame emerged from articles that employed Green Jobs terminology without specifying specific definitions or policies. Green Jobs terminology was frequently referenced in articles summarising government programs and priorities. These references were predominantly shallow in terms of content though they demonstrated strategic use of the term. This frame was invoked the most frequently; it was used by 57% of the sample set.

This frame has been invoked by a range of advocacy groups to create linkages and synergies, particularly between proposed policies in regards to the recession and climate change. Media coverage

of policy statements, reports, and intentional symbolism in placards and protests demonstrate how these groups are attempting to reframe discourse in environmental policy. These arguments, as covered in the press, directly use the language of Green Jobs while not necessarily identifying any particular parameters for the term. The use is primarily strategic, employing rhetorical idioms and motifs to deliberately persuade others (Hajer 1995; Taylor 2000)⁸. Here Green Jobs encompasses, for example, a rhetoric of calamity (oncoming environmental crises), a rhetoric of justice (workers deserve jobs), and a rhetoric of opportunity (Taylor 2000). It serves as a collective symbol and iconographic metaphor for the links between economy and the environment. With respect to Green Jobs, the discursive power of the term may be bound up with its colourful and concrete messaging, elements that are ultimately inseparable from rational arguments for job creation during environmental transitions. For example, the Green New Deal group purposely re-employed a historical term (i.e., the New Deal) to frame a new emphasis on state intervention to combat the ‘triple crisis of rising oil prices, the recession, and climate change’ (Green New Deal Group 2008). Reflecting the strategic reframing within the Green New Deal, Green Jobs terminology was frequently used by commentators, reporters, and public figures to link the recession with climate change. In this case, while discussion of Green Jobs itself was shallow, it was employed as a strategic frame and a new discourse challenge using a novel combination of traditional discourse. The closure of a wind power plant, cited in 15 articles, demonstrated new coalition building and the employment of environmental values by labour groups.⁹

5.2 Frame 2: Green Entrepreneurship

This discourse frame captures the ‘careers’ and business perspective on Green Jobs. Green Jobs are approached as a specific niche within the environmental goods and services sector, and are

⁸ Rhetorical motifs can be defined as recurrent figures of speech that amplify problems and increase the moral significance of claims (Taylor 2000).

⁹ Until April 2009, the Danish company Vestas operated the UK’s primary wind turbine manufacturing site, employing approximately 600 workers on the Isle of Wight. The decision to close the factory occurred within one week of the release of the UK Low Carbon Transition Plan. Workers occupied the facility in protest for two weeks, and several environmental groups set up camp outside the facility in support. Green Jobs arguments were frequently employed in the public debate on the closure of the facility.

frequently discussed in terms of lifestyle and career options. This frame either did not mention how labour-market opportunities would be created, or it specifically invoked entrepreneurship and an ecological modernisation perspective (Hajer 1995). This was the second most frequent use of Green Jobs terminology, evident in 19% of the sample.

Entrepreneurship is a key value of this frame. Discourse that adopt this frame has a ‘business-friendly’ approach to green job creation as elaborated by the Confederation of British Industry (Confederation of British Industry 2009). For example, the CBI argues that if policies are ‘market-friendly’ and credible, then businesses will begin seriously exploring the new ‘green’ industries. From this perspective, it is not the government’s responsibility to create jobs, but the emphasis is to align business growth strategies with specific environmental goals, such as de-carbonization, by creating price signals and other market incentives. Companies will then invest in new environmental industries and create new jobs in the course of responding to these incentives. In this frame, specific Green Jobs exist primarily in environmental goods and services sectors and as a result of business entrepreneurship. While the plausibility of ecological modernisation functioning problem-free at the firm level has been contested (Pataki 2009), this frame reinforces the role of business as a strategic agent (Skillington 1996), where innovation and environmental discourse are integrated and normalized.

5.3 Frame 3: Nascent Industry Creation

A specific discourse stream has emerged around direct government-led job creation in entirely new environmental goods and services industries. Much discussion in the coverage we reviewed referred to an earlier era of direct government intervention. Discussion around the Green New Deal often fit this frame. The documents of the Green New Deal specifically referenced the Great Depression and the leadership of Franklin Roosevelt (Green New Deal Group 2008; Green New Deal Group 2009). They called for ‘massive investments’ that would create ‘thousands of new green collar jobs’ and unleash a ‘carbon army’ of workers (Green New Deal Group 2009). This frame was demonstrated in 18% of the sample. Interestingly, the recession was also covered in approximately a fifth of the sample articles, In regards to the Nascent Industry Creation frame, the recession may have

been a key discursive moment changing the range of options that were widely discussed during the period covered by the study.

Centralized leadership was a key value for this frame. Multiple proponents argued that nurturing new industries to ensure job creation is possible through direct investment in research and development, infrastructure, and the creation of heightened teaching and apprenticeship facilities. The specific sectors often included in these types of arguments were infrastructure, such as high voltage DC cables, consumer goods like energy-efficiency products such as smart meters, and renewable energy production such as wind, tidal, and solar. It was argued these types of activities will be a significant source of job creation in the future (UK Government 2009).

5.4 Frame 4: Internal Industry Transformation

This frame reflects a perspective on Green Jobs that views ‘every job as a green job’. All industries, whether industrial or service-based, have the potential to transform their activities to reduce their carbon intensity and environmental impact. Actors employing this frame argued for various types of policies and point to different processes. This frame was cited in 11% of the sample.

The definition of ‘every job is green’ adopts a non-sector specific approach to Green Jobs, and addresses a range of environmental issues relevant to the entire labour market. While qualitatively diverse, this perspective on Green Jobs draws extensively from the values of business innovation and stakeholder management. Assumptions embedded within this frame are supported by extensive ‘management and the natural environment’ literature (e.g., Hoffman 1999; Sev. 2009; Ihlen and Roper 2011), for example that internal changes can be driven by champions within a company and shareholder activism (Bansal and Roth 2000), and that tools such as organizational environmental management systems can ensure internal industry transformation (Clarke and Kouri 2009). Jobs with reduced ecological footprints can also occur as a result of bottom-up measures from workers and communities (Blue Green Alliance 2009).

5.5 Frame 5: Structural Adjustment

While this Green Jobs frame is qualitatively unique, it was referenced in only two news articles where union leaders were quoted directly. This frame is primarily a labour perspective and is well documented in policy positions and platforms, arguing for a ‘Just Transition’ (Trade Union Congress 2008; International Trade Union Confederation 2009). Structural adjustment, in this context, refers to the job replacements necessary for the workers from industries negatively affected by environmental legislation. A key value from this perspective is job security (Springett and Foster 2005). The Trade Union Congress argues that the a move to a low carbon economy could potentially place workers in disadvantageous positions, and list numerous concerns; 1) newly created jobs may not go to those whose jobs are threatened, 2) re-training programs may not be effective, 3) newly created jobs may be of poorer quality, and 4) the geographic vulnerability of specific sectors may be unavoidable (Trade Union Congress 2008). From this perspective, Green Jobs are the new jobs provided for sectors that are being phased out.

6. Discussion

In summary, the range of frames invoked within the media sample demonstrates a broad variety of perspectives and usage of this emerging concept. The inductive frame analysis employed in this study deepens our understanding of the emerging Green Jobs discussion and arguments as communicated through the media. Our analysis generated several different types of definitions of Green Jobs, ranging from any positive employment effect of environmental policies, to specific careers and new ventures in environmental industries, to any jobs that reduce environmental impact, to jobs resulting from government-led creation of new environmental goods and services, and finally to specific transition opportunities for employees of ‘dirty’ sectors that are being phased out. While climate change legislation was frequently a focus of recent Green Jobs citations and is heavily invoked in the Environment-Economy Bridge frame, other frames are based on a broader range of environmental goods and services. In terms of the sector(s) of employment, these definitions cover a spectrum of industry sectors, some approaches undefined and applicable to any sector, others specific to

environmental goods and services, and others referring primarily to non-‘dirty industries’. Each of these frames employs different types of rhetorical idioms and arguments and is based on unique normative judgements and underlying values prescribing the relationship between employment, industry, and the government. The significant variance between the normative judgments and values embedded in the five frames is a potential factor in the lack of convergence on a universally accepted understanding of Green Jobs.

While our qualitative framing analysis demonstrates this diversity of views, assessing the predominance of one frame over another reveals that, as it is captured in the national print news media, public discourse around Green Jobs is overwhelmingly ambiguous. Almost two thirds of the time, Green Jobs was used generally in reference to some type of job creation during the transition to a low-carbon economy, with no specification as to whether the jobs would be created by market forces or the government or some combination, and whether these would be in whole new sectors or by transformation of existing industries (i.e., as an environment-economy bridge). Occasionally, these general references were bolstered by specifics.

In terms of the actor perspectives, Green Jobs arguments did not emerge from a primarily environmental or labour movement perspective. Interestingly, the social movements that have extensively adopted the Green Job term are not referenced frequently in the media discourse. In this sense, Green Jobs over time was represented proportionally less as an environmental ethic directly relevant to employment, or as a labour phenomena relevant to the environment, but more as a political campaign slogan. The concept of Green Jobs as ‘good jobs’ was rarely recognized in the press, and usually only in op-eds written by trade union representatives (“Green Jobs Are Solution: Recession”, (Mirror 2009)). Similarly, the Just Transition arguments did not garner much coverage; potential *Structural Adjustment* in the context of climate change was rarely discussed. This could be because climate change legislation has not phased out existing industries. Nevertheless, when specified, the content of Green Jobs discussed either private sector responses through green entrepreneurship or nascent industry creation through targeted government programs.

In terms of the narratives over time, as mentioned in the results, it seems clear that key discursive moments included the onset of the recession, President Obama's campaign, the release of the Low Carbon Transition Plan, and the wind turbine manufacturing plant closure. Circumstances of the last twelve months of the study pushed Green Jobs into the spotlight as a bridge to encompass environmental goals alongside concerns for employment and the economy in general. The recession forced economic considerations into the fore of increasing discussion on climate change and the transition to a low-carbon economy. While general interest stories on Green Jobs from a private sector perspective were popular prior to late 2008, these stories were largely supplanted in 2009 coverage by discussion of new government intervention to create jobs and tackle climate change simultaneously. From the sample studied, Green Jobs emerged primarily as a political discourse in party platforms and government legislation. Existing or proposed government intervention was the dominant narrative of 30% of the articles citing Green Jobs. Job creation was discussed frequently, but from a macro-economic perspective, primarily in the context of unemployment and the recession. Together, job creation and the recession were mentioned very frequently, and almost always in combination with discussion of government intervention.

Dialogue around job creation is politically charged. Politicians often use job creation as a 'carrot', and by attaching the term 'Green' to these discussions, politicians can acknowledge pressing environmental issues while addressing a traditional economic issue. Politicians began to employ the term 'Green Jobs' as part of basic policy platforms, while maintaining a very general use of the term communicated through the media. It seems Green Jobs discourse is more easily employed if its meaning is ambiguous, and politicians may have little incentive to clarify it. While the private sector continues to play a vital role in the narrative of Green Jobs, other perspectives are important in defining the appropriate level of government intervention. It could be argued that the 2007-2008 financial crisis and the recent recession instigated an overhaul of neo-liberal assumptions and re-affirmed an important role for the state. Since the recession, discussion of an 'Old liberalism' has increased, often invoking the progressive aspirations of the Obama administration, and advocating economic restructuring and government intervention to create work opportunities for the

unemployed.¹⁰ Given the uncertain timeline of the recession, it is difficult to predict the extent to which these themes will persist.

While many actors agree that major changes in economic activity are expected as environmental legislation is deepened and business takes more leadership in creating environmental solutions (Stern 2006; Worldwatch Institute 2009), the nature and breadth of policies proposed and initiatives suggested are variable. Both vulnerable parties and constituencies for change are emerging, most recently through the identification of business opportunities in the move to a low-carbon economy (Fankhauser, Sehleier et al. 2008; HSBC 2009). In the public sphere, these positive economic arguments have been aimed at policymakers and voters at large. Advocacy groups are attempting to demonstrate that policies curbing greenhouse gas emissions and advancing sustainable development goals are politically tenable and economically advantageous (Johnson, Simms et al. 2008; New Economics Foundation 2009). Many of these claims focus on the concept of ‘Green Jobs’, for its strategic bridging of the environment and the economy, the business opportunities it presents, and the range of policy options it encompasses.

7. Conclusion

In a short period of time, the concept of Green Jobs has skyrocketed in public discourse. However, the nature of Green Jobs discourse in the news media differs sharply from its treatment in the academic literature and the simple definitions provided in most policy documents. While Bezdek et al (2008) attempt to clarify who exactly has an environmental job and how many exist, the popular press rarely asks this question. Rather, the concept is most powerful as a symbol for a range of existing debates around public policy towards job creation, greening of industry and sustainable development.

Given that the upcoming United Nations *Rio+20* Summit will be focused on the green economy, green jobs as a policy discourse has the capacity to inform future discussions on sustainable development. However, the framing continues to be fractured. While the UN definition is both

¹⁰ See Brown, “Obama’s America”, Guardian, 9 November 2009; Toynbee, “Jobs, jobs, jobs” Guardian, 18 October 2009; Whitney, “Crunch can work for you”, Daily Mail, 28 Aug 2008

comprehensive and targeted (using direct and indirect jobs that ‘contribute(s) substantially to preserving or restoring environmental quality’), this approach is not adopted by national governments or the press. While the various Green Jobs claims often have empirical grounding and are employed by multiple credible actors, they are frequently incoherent and can mask deep underlying divisions. The five different frames demonstrate the varied extent of perspectives on Green Jobs. Three of these frames - the environment-economy bridge, green entrepreneurship, and nascent industry creation - are in common use in the press and introduce into popular discourse ideas and processes substantiated within peer-reviewed literature and other policy documents. The lack of media coverage on internal industry transformation indicates that either the good work of businesses in tackling their environmental impacts is not being linked to the Green Jobs discourse, or these initiatives are not getting the attention of British media.

While this study was limited to the British print media, the supporting documents considered were from different countries, including the USA. The Green Jobs discourse is a global phenomena and it is likely that these frames are found in many different regions of the world. Further research is required to determine if the predominance of the environment-economy bridge frame is true world-wide, or if perhaps this depends on regional cultural and political characteristics.

In conclusion, precisely defining what constitutes a ‘Green Job’ may well be impossible or unnecessary if the broader meaning of the term continues to take precedence. Ultimately, the tentative though popular consensus agrees that positive employment effects from policies designed to achieve environmental goals constitute Green Jobs. This definition is of strategic use to policymakers and advocacy coalitions alike by positively reframing traditional debates around the economic impacts of environmental policies. This linkage is increasingly relevant. However, the term’s frequent use as a slogan to mask a range of underlying claims may weaken it and render its use meaningless. To avoid that outcome, policymakers and other actors should continue to clarify and substantiate Green Jobs claims with analytical vigour and a forthright acknowledgement of underlying values and definitions.

8. References

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