

Political debate as design process: A frame analysis

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Abstract

Using data from the historical record of a major nineteenth century infrastructure project, this paper shows how controversial national debates can be seen as processes of design. Central to the idea of political debate as design is the concept of framing, where different ways of understanding a developing artefact are played out through conflict and resolution. The paper begins by setting the governmental context of infrastructure development before undertaking a detailed textual analysis of a specific meeting to draw out elements of a design-like discourse. The meeting participants construct a sequence of frames through which they explore their problem and with which they refine a strategy for moving forward in the process. The paper concludes that viewing political debate as a process of design can shift emphasis away from it being considered a 'simple' decision-making to more complex ideas about how our common future is shaped.

Keywords

Political debate, design process, frames, design discourse, infrastructure.

Introduction

National debates about infrastructure are often synonymous with controversial decisions being taken. These debates often accompany projects where significant amounts of capital – financial, social and cultural and usually all three – need to be invested in long-term developments. Such developments may be considered as essential by their supporters but for their opponents are unnecessary and come with unwelcome and potentially unforeseen consequences. In some cases where the debate is prolonged and a decision is forestalled, the consequences can be immediate and potentially crippling. The 2013 budget impasse over US healthcare funding is a high profile case in point, but such controversies can be observed in many areas of public policy, national security, and large-scale infrastructure development.

National and political debate tends to be viewed by public and politicians alike as simple (though important) 'decision-making' whereby a solution is obtained through the acquisition, selection, and discussion of appropriate evidence. There are, however, benefits to viewing large-scale projects in other terms, and especially ways in which design approaches and designers can play a part. Tunstall (2007) makes a distinction between the "little-d" of professional design practice and the "big-D" of strategic policy design. In arguing against prevailing views of 'governmentality', Tunstall suggests that by focusing on the production of artefacts that support the

implementation of policy, designers are more directly engaging with the debate itself. Other researchers propose more proactive interventions. The Designing Against Crime initiative (UAL, 2014) and Kimbell's (2012) notion of design-in-practice both propose the application of 'design thinking' methods to wider social applications. They both, in different ways, advocate design interventions *in* the field rather than a design interpretation *of* it.

It is a design interpretation that concerns us here. We are interested in seeing how concepts developed within the design research community, for example those that interpret design meetings in order to better understand them, might be applied to the wider domain of public policy debate. Following Lloyd and McDonnell (2009), the approach in this paper considers that a meeting, at any level, provides a focal point where participants "expose what is happening in a [design] project" as a way of considering possible future consequences.

A way to understand how meeting participants expose their own views, and represent the views of others can be found in the idea of a 'frame' as described by Schön (1983) in his account of the design process:

As they frame the problem of the situation, they determine the features to which they will attend, the order they will attempt to impose on the situation, the directions in which they will try to change it. (Schön, 1983, p.165)

At a basic level, a frame provides a unifying concept for the separate elements of a design situation, allowing 'movement' towards resolution and further proposal. Such framing allows an individual, or a group of individuals, to 'see' one thing as another, through the use of metaphor or analogy for example. Thinking through metaphors is important to framing because, as Lakoff and Johnson write: metaphors can "determine questions of war and peace, economic policy, and legal decisions, as well as the mundane choices of everyday life" (2003, p.243).

The use of frames is further explored by Schön and Rein (1994) and Rein and Schön (1996) in looking at debates within such diverse fields as pension funds and healthcare policy and more recently by Lulham and Kaldor (2013) in the field of retail security. Frames contain or bound relevant 'objects' but may also carry the values of the frame's creator or borrow values from a normative narrative to which the designer may subscribe or aspire to. The most critical aspect, particularly in controversial or contested arenas, is when frames held by different protagonists conflict. Where and how these conflicting frames are reflected, negated or resolved represent key phases within debates which are, we propose, design processes.

This paper uses such an idea of framing in considering how a nineteenth century debate on building a railway line between London and Birmingham can be interpreted as a design discourse. We undertake an exploratory frame analysis of a meeting, based on a design interpretation of framing. This analysis of an historical debate is part of a wider study on the design and development of contemporary infrastructure, and in particular the UK's High Speed Two Rail project, the first phase of which also links London and Birmingham. We begin by outlining the UK parliamentary context for major projects being approved before looking in detail at a specific meeting which discussed opposition to the project.

The UK parliamentary process

The UK parliament, both now and in the nineteenth century, consists of two chambers: the elected House of Commons and the appointed or hereditary House of Lords. Both houses must approve a major infrastructure project before it can legally proceed. Detailed legislation, in the form of a Parliamentary Bill, is drawn up to describe the powers requested, along with detailed descriptions of what, how and where the project will be built. The detailed scrutiny of a Bill is often delegated to a committee who will call witnesses, assess the evidence, explore alternatives and propose amendments. The success or failure of a Bill depends, to varying extents, on how well it was promoted, how widely it was supported and how influential those supporters are.

There is a broad design analogy in this Parliamentary process. A design is presented to a critical audience who discuss its advantages and disadvantages before making a decision as to whether to proceed with it. When pitching their work to a client, a design consultancy goes through the same basic operation: responding to an initial client brief, outlining a design to respond to that brief, and then presenting it to those clients to decide whether they wish to pursue it. If they do, then the designers are empowered with a budget, and access to their client's resources in making their design a reality.

The London and Birmingham Railway Company's (LBR) Bill that is the subject of this paper was read and approved by the House of Commons in June 1832, having passed the Commons Committee stage with little opposition. The Bill then proceeded to the House of Lords for the second Committee phase where the Bill was rejected. The Bill's failure was ascribed to the strong opposition of influential landowners, who owned significant tracts of land along the line. Landowners were influential members of the House of Lords and were able to argue that the proposed railway was not in their interests.

The LBR subsequently resubmitted the Bill to Parliament in February 1833 when it passed unopposed. The company minute book for the period between those two parliamentary sessions shows a concerted effort to gain the support needed to proceed. This effort was devised at a meeting held shortly after the House of Lords committee had rejected the Bill. This meeting, which is the focus of our analysis in the following sections, took place at the Thatched House Tavern in London, and represented a critical point in the development of the railway line. The meeting was recorded in the company minute books (London and Birmingham Railway, 1832a, p.180) and a transcript was widely circulated among parties whose interests were served by the proposed railway. The transcript runs to 224 lines and, although not a verbatim record of the discussion, it provides a detailed account of what was said. The following sections of the paper are based on our analysis of this transcript.

The Thatched House transcript

The Thatched House meeting was organised and attended by supporters of the railway in response to the Bill's failure. All of the participants, apart from

the Chairman of the Railway Company, were Members of Parliament. The Chairman, Lord Wharncliffe, who had chaired the House of Lords Committee when the Bill failed, formally opens the meeting, explaining its purpose as considering “the circumstances which occasioned the failure of the London and Birmingham Railway Bill” and to discuss “what further proceedings may be expedient” in getting the Bill approved. The meeting then proceeds through four formal resolutions that provide a broad structure to facilitate the discussion.

The first resolution, shown below in Excerpt 1, proposes that the railway will be “productive of very great national benefit” (line 14). Sir Gray Skipwith, who chaired of the House of Commons Committee, seconds the resolution citing “the great towns” that the railway would unite and the “districts through which it would have passed” (line 17-18).

12 The Earl of Denbigh then rose and moved - "That in the opinion of this
13 Meeting, a Railway from London to Birmingham will be *productive of very*
14 *great national benefit.*"
15 Sir Gray Skipwith, MP seconded the motion, and stated that no person
16 who duly considered the subject, could doubt that the proposed Railway
17 would have been extremely beneficial to the *great towns* it was intended
18 to unite, to the *districts through which it would have passed*, and the
19 *nation at large.*

Excerpt 1: Lines 12 to 19 of the Thatched House transcript. Note: italicised text in all excerpts is used in the frame analysis of the following section.

The second resolution (Excerpt 2) recognises the “rigorous” examination in the House of Commons Committee hearing (line 23) and that its failure in the House of Lords was due to landowners “ill-founded” apprehensions about the effect the railway would have on their estates (line 24-27).

22 "That the Bill for effecting this important object having passed the
23 House of Commons after a *long and rigorous examination of its merits*, it
24 must be presumed that its failure in the House of Lords has arisen from
25 *apprehension on the part of the landowners and proprietors respecting its*
26 *probable effect on their estates*, which this Meeting firmly and
27 conscientiously believe to be ill founded."

Excerpt 2: Lines 22 to 27 of the Thatched House transcript.

Wharncliffe observes before putting the second resolution that, before agreeing to chair the Lords Committee, he was conscious that the Bill was likely to meet fierce opposition but that he was himself “entirely unpledged”.

33 Committee, will remember that I pointed out to them the difficulty which
34 so great a proportion of dissentient land-owners would offer to the
35 passing of the Bill; and I begged it might be understood that I went
36 *into the Committee entirely unpledged.*

Excerpt 3: Lines 33 to 36 of the Thatched House transcript.

In Excerpt 4 Wharncliffe recognises how conclusive the evidence for the Bill is (line 45-46).

44 in the course of my Parliamentary life, I never saw one
45 passed by either House that was supported by *evidence of a more*
46 *conclusive character*.
47 Of the utility of such a measure *no one in the least acquainted with the*
48 *nature of trade can entertain a doubt* - a speedy communication with the
49 ports of shipment or places of consumption, is of vital importance to
50 the manufacturer-there can be no doubt that such a mode of communication
51 as this was proposed to be, will be extended not only to Birmingham but
52 to *Liverpool, to Lancashire, Yorkshire, and all the manufacturing*
53 *districts of the North*, and will be productive of great national
54 benefit. Still I must contend that it is the business of the legislature
55 to protect the property of the parties through whose lands the line
56 would pass, to assure itself that all practicable measures have been
57 taken to satisfy those persons whose property is to be *invaded*, and who,
58 I must think, ought never to be hurried and forced, but rather *wooded and won*.

Excerpt 4: Lines 44 to 58 of the Thatched House transcript.

He goes on to note that increasing the speed of communication between port and consumer is of “vital importance” and “of great national benefit”, but it is the business of Parliament to protect landowners’ property and “satisfy those persons whose property is to be invaded”. Those landowners must be “wooded and won” rather than “hurried and forced” into something that they are resistant to.

Francis Lawley, a member of the House of Commons Committee that had previously approved the Bill is “fully convinced that the landowners’ fears of injury to their property or interference with their comfort and convenience are entirely unfounded” (Excerpt 5: line 80-82).

73 having heard not
74 only the evidence in favour of the measure, *but all that could be*
75 *alleged against it*; and I can safely say, and say it with more
76 confidence as my opinion perfectly coincides with that of your Lordship,
77 that I went into the committee pained and grieved that so many landed
78 proprietors dissented from the measure, and feeling like your Lordship,
79 that it my duty to afford them every protection; but I came out of the
80 Committee fully convinced that the *fears they entertained of injury to*
81 *their property, or interference with their comfort and convenience*, were
82 entirely unfounded. I declare I would not otherwise have supported the
83 measure as I have done.

Excerpt 5: Lines 73 to 83 of the Thatched House transcript.

The third resolution considers how the Bill might be more successfully presented, as well as overcoming previous difficulties, by employing “timely explanations” and “judicious management”. Wharncliffe introduces the third resolution with a description of how the Bill was defeated fairly, despite rumours to the contrary (line 113) and of the unwillingness of the Lords to “force this measure on so many dissentient landed proprietors” (line 104). The resolution is put and carried without further debate and the meeting then continues as participants make additional contributions.

Thomas Paget (Excerpt 6) reports how he changed his mind about the railway, after recognising how he would benefit from it.

140 a railway passed through an estate of his

141 own; that at first he was opposed to it, but the benefits, the pecuniary
142 benefits, arising from the enhanced value of the property, had been such
143 as to convince him that *in opposing it he opposed his own interest*, and
144 he was satisfied that in the event other landowners would come to the
145 same conclusion.

Excerpt 6: Lines 140 to 145 of the Thatched House transcript.

The next speaker, Colonel Torrens, considers that it would be unnecessary to intimidate landowners since the benefits of the railway are so plain to see (Excerpt 7). He identifies a specific financial benefit of the railway by comparing the reduced cost of carrying goods by rail to increasing fertility in the landowners' soil.

158 *intimidation, and I beg leave to say one word, just to express my own*
159 *opinion, that every species of intimidation would not only be improper,*
160 *but entirely unnecessary because the utility of a measure of this kind*
161 *rests upon grounds so plain and so easily made out, that it only*
162 *requires a little time and a little plain statement of the question to*
163 *convince the landed proprietors on the line, who are now averse to it.*
164 *It is my opinion, and an opinion formed upon some reflection, that every*
165 *thing which has a tendency to diminish the cost of carriage of goods or*
166 *agricultural produce, must have a similar effect to that which would be*
167 *produced by increasing the fertility of the soil itself, and therefore*
168 *the landowners in this kingdom in particular are the person most*
169 *interested in every thing that tends to cheapen and quicken carriage*

Excerpt 7: Lines 158 to 169 of the Thatched House transcript.

Wharnccliffe's final contribution (Excerpt 8) reasserts the mistaken apprehension of the landowners and that the railway promoters must take care of even "the fancied comfort" of landowners; that is to say the comfort that they perceive they have. His final point indicates that support for the project is growing, but there are "certain individuals" whose influence is such that potential supporters have been compelled to oppose it.

172 In my judgement, there cannot be a greater mistake,
173 on the part of the landholders, than to think *a Railway through their*
174 *lands would prove injurious to them*. On the contrary, it will tend to
175 increase their convenience and their rentals. I am convinced the
176 promoters of this measure, in its future progress, will take care it
177 shall interfere as little as possible *even with the fancied comfort* of
178 proprietors. I add that, during the course of the proceedings on the
179 Bill, and since its failure, I have observed a disposition, on the part
180 of some who opposed it, to view it more favourably; and one who took a
181 leading part in the opposition, has stated to me his own wish to have
182 formed some amicable arrangement, but he found there were certain
183 individuals who though the injury they should sustain would be such as
184 would not admit of remuneration; *he could not desert them*, and was
185 *therefore compelled, whatever might be his own inclination, to continue*
186 *his opposition*.

Excerpt 8: Lines 172 to 186 of the Thatched House transcript.

A frame analysis of the transcript

The above transcript gives a detailed view of the meeting. As part of an overall design process, this meeting can be viewed as a project meeting. The design team have got together in a local bar to consider why their initial plans, so clearly beneficial to their clients, haven't been successful. In the bar, the team ponder what they need to do to get their design approved at the next design meeting.

We will now consider how the key themes of the debate are introduced and developed by the participants as they consolidate their strategy for moving forward. To do this we look for potential examples of framing and reframing which would support our interpretation of the meeting as part of a larger design process.

The Thatched House meeting had two explicitly stated objectives: first, to consider why the Bill failed and second, what should be done to ensure its future success. Another theme is introduced early in the debate: the "very great national benefit" (Excerpt 1: Line 13-14) that the London and Birmingham railway will produce. The question of why the Bill failed is very quickly answered in the second resolution: it was due to landowner's ill-founded apprehensions about the effect the railway would have on their estates (E2: 25-26).

These apprehensions are considered to be ill-founded in a number of ways. The Bill underwent a "long and rigorous examination of its merits" in the House of Commons (E2: 23) and was supported by conclusive evidence (E4: 46) that easily withstood "all that could be alleged against it" (E5: 74). However this evidence is clearly contentious, as it was so firmly rejected by the landowners on the House of Lords Committee. If these apprehensions are seen as a frame of opposition then the supporters of the Bill must understand how this frame has been constructed in order to counter it with their own and thereby secure the support of those who were compelled to oppose the Bill (E8: 185-186).

Wharnccliffe's statement that he went into the committee unpledged (E3: 36) underlines his rigorous approach to the evidence but also indicates some empathy with the landowners. He wants it understood that, had the evidence not convinced him, he too may have been an opponent. Wharnccliffe, along with all members of Parliament, is a landowner. The viewpoint of the landowners is more fully explored when the Bill's failure is seen to result from their fear of the effect of the railway on their estates and it is here that a key metaphor is introduced. Wharnccliffe describes the railway as an "invader" (E4: 57) that would "prove injurious" to landholders (E8: 173-174), a theme also developed by Lawley who refers to the "injury to property" (E5: 80).

What is being constructed is an understanding of the opponents' viewpoint, a frame that can bring their concerns, or rather an understanding of their concerns, into relief. The landowners are 'seeing' their property as being invaded by the railway, which becomes an aggressor in challenging or taking away their "comfort and convenience" (E5: 81), even if such comforts are "fancied" (E8: 177). The invasion metaphor works in grouping together the various concerns of the landowners; they are being forced into

something they don't want, are having to defend themselves as a result and are not to be deserted (E8: 184).

Setting the frame of the railway development as an (aggressive) invasion allows a move to be discussed that might counter the aggression and for Parliament to be seen as a protector against the unwanted invasion. There is a distinction drawn in the meeting between "intimidations" (E7: 158-159) on the one hand – further aggression, but fitting the frame of the invasion metaphor – and "wooing and winning" (E4: 58) – a more diplomatic and conciliatory strategy for turning opinion. The frame of 'invasion' has allowed two alternatives to be discussed that draw on the dominant metaphor, so a logic of resolution is brought into play.

For the Bill to succeed the landowners' stance must be shifted towards seeing the railway as serving, rather than threatening, their interests. This shift is described by Thomas Paget (E6: 143), who came to see his opposition as counter to his own interests when he became aware of the financial benefits that the railway brought to his estate. Further benefits resulting from the railway are itemised at various geographical scales: the "great towns" the railway would unite (E1: 17), the "districts through which it would pass" (E1: 18) and eventually as a way of connecting the whole country from the "ports of shipment to the places of consumption", to Liverpool, Lancashire, Yorkshire, all "the manufacturing districts of the North" (E4: 51-53) and "the nation at large" (E1: 19). The benefits will be felt everywhere and by everyone; a fact that anybody acquainted with the nature of trade (E4: 47-48) can appreciate.

However, the benefits that are clear to the promoters of the bill are not clear to the landowners. What is needed is a way for the landowners to 'see' and understand those benefits and it is here that another key metaphor is introduced. Colonel Torrens (E7: 164-167) states that a reduction in the cost of transport is the same as "increasing the fertility of the soil itself". In drawing on an agricultural metaphor he frames the railway as something that can make the very soil (metaphorically) more fertile. This is achieved not through physical means, as a farmer might do and which takes considerable effort, but by something far easier. The economic benefits that arise from having fertile soil (i.e. an increased crop) can be achieved without effort. The agricultural metaphor has subtly shifted the 'objective' national benefits to a more subjective way of understanding benefit: from national progress to local productivity.

The two broad frames that are drawn in understanding the landowners' position and seeking to change it – 'invasion' and 'agriculture' – are also linked more subtly. The 'move' within the invasion frame is for 'wooing and winning', not further aggression or intimidation, and this self-consciously gives a female slant to proceedings. The landowners should be treated as if courting a woman, Wharncliffe suggests, with all the respect, manners, and perhaps even flirtation that "wooing and winning" suggests. The female aspect to the proposer's strategy is further enhanced with the second agricultural frame when fertility is mentioned, with the suggestion of a mother nature bearing fruit for the landowners.

Discussion

We have shown how an historical political debate can be interpreted as a design process by way of a frame analysis. We briefly drew an analogy between the context surrounding the political debate and that of a commercial design process, before turning to the specifics of the debate. The explicit use of metaphor in understanding the views of other parties is a key indication of a frame being constructed that could allow subsequent movement in relative positioning. This analysis showed how the particular frames being constructed – of invasion and of agriculture – allowed just such movement. The fact that the Bill was passed unopposed in a second reading at the House of Lords committee must be taken as some evidence for the success of this approach.

Schön and Rein (1994, p.170), whom we referenced at the beginning of our paper, list four ways in which contention is dealt with in policy design:

- by continuation or escalation;
- by a marketing strategy where designers reshape their objects to suit the interests of other actors;
- through negotiation where contending parties try to arrive at a mutually satisfactory compromise;
- by co-design where contending parties become part of a reformed designing system

The analysis in this paper is closest to the second of these where the designers of the Bill try to reshape their object to suit the interests of the landowners.

There are two further aspects to our analysis that warrant further discussion. The first is about the validity and usefulness of seeing political debate as a design process. It might be argued that the proper analysis of design process is in identifiable fields of design – architecture or product design, for example. While we agree that there is much to be learned by looking at design processes in particular disciplines, political debate about infrastructure, as we have shown, displays many of the characteristics of a design process, so we propose that it could be treated as one. Furthermore, it can be argued that political debate captures the very essence of design in a wide and general sense; as important discussion about the way our lives are shaped. Architecture and product design have those discussions, but they are often lost against other pressing issues such as materials, function, or aesthetics. In contrast, political debate about infrastructure concentrates on the range of consequences that might follow from a certain proposal; a real thinking out of the future that is at the very heart of our understanding of design. In many ways Parliamentary debate represents ‘top level’ design from which other forms of design (urban design, architectural design, engineering design, graphic design, product design, etc.) flow.

The second aspect concerns the historical nature of this study. Why look at a parliamentary debate that occurred 180 years ago? The London to Birmingham railway was chosen as part of a larger study looking at the design of national infrastructure. This took as its starting point a parliamentary debate about the currently proposed High Speed Two (HS2) rail link. What struck us about this debate was how it contained design-like

elements; discussion about the value of proposed solutions, objections to those solutions, and so forth. Seeking parallels between this discussion, and knowing the eventual outcome of the original 1832 London to Birmingham railway, we started looking at a number of archives to put together the 'story' of its design. The next phase of our research will examine current debates about HS2, where the outcome is still unknown. Our historical analysis will provide an anchor for this although the parallels are already striking.

Finally, there are three features of Parliamentary debate that make it attractive for a design study. The first is that Parliamentary debates must summarise and then focus directly on issues of primary concern, because time for debate is extremely limited. In this sense Parliamentary debate represents a distillation of all discussion that takes place around large design projects. Second, Parliamentary debate is publicly available as a source of data. Design Studies of talk tend to limit themselves to contemporary discussion but there are large databases of historical transcripts where a 'design analysis' can shed light on the ways in which important solution proposals are discussed and progressed. Such an analysis can, in turn, help to reinforce larger ideas about the nature of design. Thirdly, analysis such as this recognises and underlines the political aspects of design and in doing so invites designers to reflect on their engagement with, and influence on, the wider contexts of their work.

Conclusions

This paper set out to explore how an historical debate, and the discourse from which it is drawn, can be interpreted as a design discourse. We have shown that nineteenth century Parliamentary procedures can be seen, in broad terms, as a design process in a number of respects. A close reading of a key transcript revealed how frames, constructed using metaphor, are used to 'move' seemingly intractable positions into tractable ones. Such a way of viewing parliamentary debate, we have argued, shifts analytical emphasis away from simple decision-making to a more solution-oriented approach, encompassing more complex ideas about future consequences and value; issues that concern us all.

References

Kimbell, L. (2012). Rethinking Design Thinking: part 2. *Design and Culture*, 4(2), pp.129–148.

Lakoff, G & Johnsen, M. (2003). *Metaphors we live by*, Chicago: University of Chicago

Lloyd, P., & McDonnell, J. (2009). *About: Designing – Analysing Design Meetings*. Taylor and Francis.

London and Birmingham Railway. (1832a). *Board of Management Minutes*, Public Records Office, RAIL 384/1

London and Birmingham Railway. (1832b). Extracts from the Minutes of Evidence given before the Committee of the House of Lords on the London and Birmingham Railway Bill. London.

Lulham, R., & Kaldor, L. (2013). Creating alternative frames for a retail security problem. In *5th International Association of Societies of Design Research (IASDR) Conference*. (pp. 4637–4648). Tokyo.

Rein, M., & Schön, D. (1996). Frame-Critical Policy Analysis and Frame-Reflective Policy Practice. *Knowledge and Policy*, 9(1), 85–104.

Schön, D. (1983). *The Reflective Practitioner*. San Francisco, Jossey-Bass.

Schön, D., & Rein, M. (1994). Frame Reflection. Toward the resolution of intractable policy controversies. New York: Basic Books.

Tunstall, E. D. (2007). In design we trust : Design, governmentality , and the tangibility of governance. In *2nd International Association of Societies of Design Research (IASDR) Conference*. Hong Kong.

UAL. (2014) *Design Against Crime*. Retrieved March 7, 2014 from University of the Arts London, Central Saint Martins College of Art and Design website: <http://www.designagainstcrime.com/>

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