

Design as analysis: examining the use of precedents in parliamentary debate.

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Abstract: Design continues to look beyond the confines of the studio as both practitioners and researchers engage with wider social and political contexts. This paper takes design into the Parliamentary debating chamber where a country raises and debates problems and proposes and explores solutions. There is an increasing amount of work that explores the use of design in policy-making processes but little that explores design as an interpretation of the Parliamentary process. This paper draws on one characteristic of the design process, the use of precedent, and examines how this appears and functions in Parliamentary debate. The paper argues that this 'design analysis' gives insight into debate as a design process and into the debate transcript as a naturally occurring source of design data. This contributes to the scope of design studies and suggests that the UK Parliament could be considered one of the most influential design studios in a country.

Keywords: political debate, design process, design precedents, design analysis, design data

1. Introduction

1.1 The scope of design studies; Design + Research + Society

The nature, purpose and scope of design studies have been questioned throughout its developing literature. This can be seen in early distinctions between rationalist and random methods identified by John Chris Jones (Jones, 1984), in attempts to define the discipline in terms of its technological attributes and scientific rigour (for example, Cross, 2001) and more recently with Cameron Tonkinwise's review asking what design studies is good for (Tonkinwise, 2014). Alongside this ongoing inquiry, design studies has been instrumental in effecting a broader engagement with design in terms of, for example, professional practice (Schön, 1983), business management (Brown, 2009), object speculation (Dunne & Raby, 2013), critical practices (Di Salvo, 2012), and policy design (Miller & Rudnick, 2011).



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An increasing number of government departments and other public bodies are engaging designers, design practices and design thinking in order to help with the development and implementation of complex and potentially intractable issues (see for example Kimbell, 2015). These engagements follow a tradition of work that can be traced back to Schön's exploration of policy and design (Schön, 1980), the 1982 DRS/RCA conference on Design Policy (Langdon et al, 1984) and the 1973 Design Research Society conference on Design Activities (DRS/DMG, 1973). There is thus an established connection between the practice of design, the practice of design research and the practice of government.

This paper builds on work reported at DRS 2014 (Umney et al., 2014) that identified the potential insights to be gained from viewing political debate as a design process. This paper further explores that connection by adopting design as a way of analysing how Parliament works. It begins by identifying a characteristic perspective of the design process, the use of precedent, that can be used as a way of interpreting a debate. This is then adopted as a method to analyse a specific debate. The results of this analysis are then developed in a discussion that concludes by calling for stronger connections between design as practised and studied and society as embodied in the practice of government.

1.2 A perspective from design

One view of the design process is that designers progress a project by creating shifts in perspectives. The shift in perspective as a designerly practice was proposed by Jones (1971) whose design methods pre-empted more recent adoptions of perspectives from other fields. Seeing the situation from a different perspective or frame is a theme subsequently developed in various accounts of the design process, most notably in the work of Donald Schön whose early work on the displacement of concepts (Schön, 1963) demonstrates his starting point for later developments in positioning "seeing-as" and framing as part of the design process (Schön & Wiggins, 1992; Schön & Rein, 1994). Schön's work has been operationalised by several authors as a method of analysing design activities (e.g. Valkenberg and Dorst, 1998, Blyth et al., 2012) which seek to identify instances of framing and related activities taking place within a design discourse.

Shifts in perspective are proposed in the wider and popular literatures of design thinking and by design researchers, such as those engaged in the Design Thinking Research Symposia (e.g. Cross et al., 1996; McDonnell & Lloyd, 2009;). They adopt analytical perspectives from other disciplines, such as linguistics or cognitive science, as a way of approaching, interpreting and increasing our understanding of design activity. This paper builds on that research trajectory by taking an aspect of design activity and adopting it as an analytical perspective.

A specific instance of how shifts in perspective are deployed in design can be found in work on the use of precedents. By drawing on perspectives from the past, and looking at the present situation from or through that perspective, designers deploy these shifts in a number of ways. Precedents are seen to allow designers to move quickly towards a solution

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and can be found, for example, in architectural practice (Alexander et al., 1977), knitwear design (Eckert and Stacey, 2000) and engineering design (Ball & Christensen, 2009).

The use of precedents also affirms the shared identity of the team of designers. Eckert notes this, but it is explicitly seen in Lawson's (1980) experience with architects at Richard McCormac's office, whose development of specific terms, and a growing portfolio of buildings that the team has worked on, contribute to the way that individuals identify themselves as a team. The use of precedents is also recognised as a mechanism that reflects, or rejects, previously asserted values. Modernism asserted that degenerate bourgeois values from the past should not be referenced in modern designs (Banham, 1960). Conversely post-modernism refers to an eclectic range of precedents partly as a response to the "puritanically moral language of orthodox Modern architecture" (Venturi, 1966).

These examples provide a broad overview of where clear uses of precedents have been observed in design literature and practice. On the one hand the precedent is a workaday tool of the designer who, especially in a commercial environment, is required to produce designs that fulfil a brief, and can be delivered to a budget and on time. This kind of precedent acts as a kind of shortcut. On the other hand, the precedent, even one as seemingly innocuous as a knitted sweater, inevitably carries with it, intentionally or not, values. These values might, in terms of a fashion item, allow the wearer to identify with a particular group or lifestyle choice. They are also seen to allow the designer to assert their membership of a team, as in McCormac's office, or to be associated, or dissociated, with a wider movement that engages with morals and orthodoxies. In all cases the precedent is a source drawn from the past, with particular attributes that are intended to have some affect on the future. Precedent can therefore perform an important role in the development of a project, providing potential insights into the direction and motivation of participants. This is an especially important perspective in major design projects that involve public engagement and large amounts of public money.

The use of precedent is adopted in this paper as a method of approaching and interpreting a Parliamentary debate. The constituent parts of each precedent: the source; its attributes and its intended effects are identified, extending a model of frame creation proposed by Dorst (2015), and used to provide a clear way of identifying the context in which the precedent is used and what it appears to be used for.

2. Context

2.1 How Parliament works: debate as the design of society

In common with many representations of design processes (e.g. Valkenberg & Dorst, 1988 and Pahl & Beitz, 1986) the UK Parliamentary process follows a series of stages (shown in Figure 1) that begins with the announcement of the intended legislation and ends with the final approval that empowers the government to legally proceed with its plans.

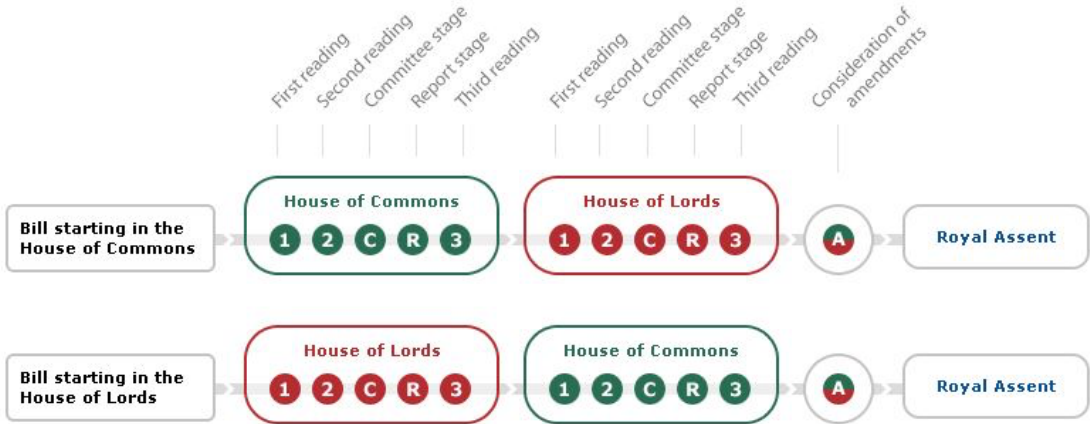


Figure 1 The passage of a bill through the UK Parliament (image: Parliamentary copyright)

A key stage of this process is the second reading of a Bill. This is, according to one of the standard texts on how Parliament works (Rogers & Walters, 2006), the first opportunity for the underlying principles of a bill to be subjected to scrutiny from elected members who have not necessarily been involved in the drafting of the proposals or the policy it expresses. The second reading is also the first stage in the Parliamentary process where a vote is taken to decide whether the bill can proceed to subsequent stages. The second reading then is the point where the future of a project is decided, not unlike a design meeting where the client is asked to sign off an underlying concept or work done to date. The importance of the second reading, and its parallel with design meetings, led to its selection for the study described in this paper.

2.2 Infrastructure debate

The subject of debate selected for this study is the proposed development of a new high speed railway line known as High Speed Two (HS2). HS2 is one of the largest major infrastructure projects to be planned in the UK for a number of years. The route connects four of the country’s largest cities, running from London to Birmingham and then extending with two separate arms to Manchester and Leeds. A series of contested claims have been made for HS2 about its ability to address the problems it is intended to solve, including the capacity in the existing network, the need to increase the speed of journeys between the economic centres of the country, the likely success of claims made for it to relocate some of the economic activity out of the capital city of London and to enhance and ensure the UK’s competitiveness in a global market.

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Figure 2 The route of HS2 (image: Guardian Newspapers)

The proposed route (shown in Figure 2) runs through a large number of communities, including a protected area of the countryside, and affects a large number of residents. At a projected cost of £52 billion it also involves a considerable public investment. For these reasons the HS2 debate forms an important part of the government's plans for the country but is also controversial, difficult to resolve and accompanied by conflicting views over the principles upon which it is based. In many respects this debate resembles a classic design problem.

2.3 Debate data as a source of design research

The UK government records all debates of this kind and publishes them in a formal record of proceedings known as Hansard which are transcribed more-or-less verbatim as the debate takes place and then published as the official record. Debates are also recorded to video which allows any inconsistencies in the text to be compared with another source. The second reading of the HS2 Preparation Bill, used in this study, took place on 26 June 2013. The transcript of this debate comprises 3380 lines of text which represents four and a half hours of debate undertaken by 57 participants. Relevant sections of the debate referred to in this paper are excerpts from the full Hansard record that is available online.¹

¹ *House of Commons Debate*, vol. 565, cc. 335-409, 26 June 2013. Available online at: <http://tinyurl.com/l736hkq>. All excerpts in this paper are drawn from this source which is referred to as HoC, 2013 followed by relevant column number.

3. Method

This section introduces a method for approaching debate from a design perspective based on a model of framing as design process. It demonstrates how a specific characteristic of the design process, the use of precedent, can be seen as a framing process and how this framing process can be broadly seen in terms of design process that has a start and end state.

3.1 Identification of precedents in transcript

It is first necessary to identify precedents where they occur in the data. This begins with a close reading of the text, looking for any references to past projects or experiences that are used to inform the debate. An example of how the use of a precedent appears in the debate is shown in Excerpt 1 below where the positive impact of a prior project, in this case a number of iconic examples of Victorian engineering, is called upon to inform the current debate.

Iain Stewart: My hon. Friend is absolutely right.
 To those who voice concern about visual intrusion on areas of outstanding natural beauty, I simply make the point that railway infrastructure need not be ugly—it need not be concrete blocks. Look at some of the fantastic pieces of railway engineering and architecture we have: the Forth bridge, the Glenfinnan viaduct, Brunel’s bridges and tunnels—they have enhanced the landscape. I urge my right hon. Friend the Minister of State to make HS2 into an opportunity to showcase the

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best of British design and engineering, with bridges, viaducts and other infrastructure that show off and augment our landscape.

Excerpt 1 An example of the use of a precedent, in this case Victorian engineering, identified in a Parliamentary debate (screenshot from online source of HoC, 2013:c364)

3.2 Clarification of the context in which the precedent is used

The context of the precedent, as noted in 1.2 above, can be followed through the identification of its source, the attributes of that source that appear to be relevant to both the source and the target (which is in this case HS2), and the anticipated affect these attributes may have on HS2. Figure 3, below, shows the text from Excerpt 1 expressed in these terms.

source	attribute	effect
Victorian railway architecture and engineering	enhance the landscape	showcase the best of British design

Figure 3 The precedent of Victorian railways shown as a source, attribute and effect developed from Excerpt 1

Taking this one stage further, these three constituent parts of the precedent can be written out in a form that more clearly expresses the way in which the precedent is used and the shift in perspective that it introduces to the debate. This method is adopted from Kees Dorst’s frame creation process, a reframing aid that helps designers engage with problems in social contexts. Dorst used a construct: “If the problem situation is approached as if it is...then...”. (Dorst, 2015:78). This formulation is adapted here as a way of observing framing

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in the specific form of precedents used in the debate. Based on Dorst’s formulation of frame creation, this follows a general narrative template:

If a particular ATTRIBUTE of the current situation is approached from the perspective of SOURCE then we might see how this will AFFECT the present

This treatment of the example above is shown in Figure 4 below:

If we look at *the impact of railways on the landscape* (which is a concern of the opposition) from the perspective of *existing Victorian examples* (which are fantastic) then we can see that HS2 will *showcase the best of British design and engineering*

Figure 4 The elements of the precedent identified in Figure 3 represented as a reframing narrative

Restating the excerpt in this way allows the narrative that is developed through the precedent to be clearly identified. In this case the threat of intrusion is reframed as an opportunity to show off the country’s design skills and the country itself. All of these stages are collected together in Figure 5 below and present the method of inquiry adopted in this paper.

To those who voice concern about visual intrusion on areas of outstanding natural beauty, I simply make the point that railway infrastructure need not be ugly - it need not be concrete blocks. Look at some of the fantastic pieces of railway engineering and architecture we have: the Forth bridge, the Glenfinnan viaduct, Brunel’s bridges and tunnels - they have enhanced the landscape. I urge my right hon. Friend the Minister of State to make HS2 into an opportunity to showcase the best of British design and engineering, with bridges, viaducts and other infrastructure that show off and augment our landscape.

Iain Stewart (Milton Keynes South, Con), HoC, 2013:c363

source	attribute	effect
Victorian railway architecture and engineering	enhance the landscape	showcase the best of British design

If we look at *the impact of railways on the landscape* (which is a concern of the opposition) from the perspective of *existing Victorian examples* (which are fantastic) then we can see that HS2 will *showcase the best of British design and engineering*

Figure 5 The Victorian railway precedent represented in terms of the relevant context and the reframing that is taking place

The next section applies this method and the representation it generates to a series of precedents found in the transcript of the same debate.

4. Results

4.1 Frequency and sources of precedents found

During the course of the debate 85 instances of precedents were found in the transcript. The full set of precedents found in the debate transcript are listed in Figure 6, below, which shows the range of different sources from which precedents are drawn.

Precedent source	Frequency
HIGH SPEED RAIL projects already developed or planned in other countries	22
HIGH SPEED ONE (HS1) - the existing high speed rail line linking London with the Europe via the Channel Tunnel	16
VICTORIANS - developed the original UK railway network	9
WEST COAST MAINLINE - the mainline route connecting London with the North West of England and Scotland	7
CROSSRAIL - a major infrastructure project connecting East and West London	6
MOTORWAYS - M1 and M25	5
JUBILEE LINE - an extension of the London Underground to the docklands, opened in 1999	3
OLYMPIC GAMES - held in London in 2012	3
THAMESLINK - the mainline cross-London railway from Bedford to Brighton	2
BEECHING - the 1963 rationalisation of the railway network	1
BRITISH RAIL's 1990 speed test on the east coast main line	1
LONDON BUSES - commissioned by Transport for London in 2012	1
MANCHESTER AIRPORT - second runway	1
Previous high spend CAPITAL PROJECTS - unspecified	1
PRIVATISATION of the railways - enacted by the Conservative Government in 1993	1
TOWER OF LONDON - an eleventh century castle in central London	1
Total number of instances	85

Figure 6 Precedents from the second reading of the HS2 Preparation Bill showing sources from which they are drawn and the frequency with which they occur. It is unsurprising that the most common precedents called upon during a debate on a proposed high speed railway are other examples of other high speed rail projects.

As the debate is about the development of a new high speed railway line it is unsurprising that other high speed railway projects are referred to. The other examples listed give an indication of the range and volume of precedents that are used in the debate and also the range of contexts from which they are drawn. Any one of these precedents and the projects they refer to could be used as a source for an analysis of the function they can be seen to serve in the debate.

Of these projects, High Speed One (HS1) is the only existing example of a high speed railway project in the UK. This line connects London with Europe via the Channel Tunnel and, completed in 2007, is the most relevant precedent in terms of a combination of its use of a similar technology, its geographical proximity and recent timeframe. Because of this relevance a selection of the instances of HS1 as a precedent in this debate will form the basis of the analysis that follows. This analysis seeks to test in more detail the methodological

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approach outlined above and in doing so to explore the potential of this kind of approach to debate from a design perspective

4.2 The planning process

The Parliamentary process that HS2 must follow, as shown in section 2 above, is the same followed by all legislation, including other major infrastructure projects such as HS1. The amount of time needed for HS1 (and Crossrail, another complex infrastructure project) to pass through this process is referred to in the excerpt shown from the HS2 debate in the Figure 7 below.

<p>Despite its inclusion in the Queen’s Speech, Ministers cannot even guarantee a Second Reading for the hybrid Bill in this Session, leaving just one year to secure its passage through both Houses. It took two years and one month to take the hybrid Bill for High Speed 1 through Parliament, and Crossrail took three years and five months. Neither of those schemes was on the scale, or came with as much controversy, as this new rail line. The Government’s inaction in the past three years requires them to rush the Bill at the end of this Parliament.</p> <p style="text-align: right;"><i>Maria Eagle (Garston and Halewood) HoC, 2013:c350</i></p>		
source	attribute	effect
HS1 numbers	time taken to pass Bill through Parliament	not enough time to have proper debate
<p>If we look at <i>the parliamentary process</i> from the perspective of <i>HS1</i> then <i>HS2</i>, with its scale and controversy, will not be given a proper debate by a Government who hasn’t managed the project properly</p>		

Figure 7 An excerpt from the HS2 debate showing reference to previous infrastructure debates and the Government’s ability to manage the process.

In this sequence the participant, a supporter of HS2 but not a member of the Government, is using HS1 to demonstrate how long it will take for HS2 to gain approval. The lower level of complexity and smaller amount of controversy of HS1, it is claimed, still led to a debate that took twice as long as the amount of time allocated for HS2. This comparison is used to demonstrate that the Government has not learnt sufficiently from this precedent. As a result of the Government’s inactivity the debate is seen to be rushed and the Government is, by implication, inept at managing the process. This precedent shows HS1, in terms of the scheduling of Parliamentary business, as a shortcut that was not followed in time. This is also used to identify a distinction between the Government and the participant making this speech who seeks to show their support for HS2, they want to see it happen, but who also does not support the Government and does not want to see them re-elected.

4.3 The need for HS2

One of the main justifications for building the HS2 line is that the existing transport network, including road and rail, is congested and that the railway network running north from London will reach full capacity within a decade. The precedent in Figure 8 below uses the

number of passengers travelling on HS1 to look at the capacity question from a different angle.

<p>I must agree. Only a very small percentage of people use trains regularly. As the Transport Secretary has said, 10 million people travel annually on HS1, or about 30,000 people a day; another, say, 1.5 million people travel on all the other trains. What is the number of those not travelling? Practically everyone else in the country—59 million, say. That is the difference: 1.5 million on the one hand and 59 million on the other.</p> <p style="text-align: right;"><i>Mr Andrew Turner (Isle of Wight) HoC, 2013:c390</i></p>		
source	attribute	effect
HS1 passenger numbers	passenger numbers as proportion of population	More trains are unnecessary
<p>If we look at <i>passenger numbers</i> from the perspective of <i>HS1</i> then <i>HS2</i> is not necessary.</p>		

Figure 8 An excerpt from the HS2 debate using passenger numbers from HS1 to question the need for a new railway line.

By identifying rail passengers, based on the number of people travelling on HS1, as a discrete group of the population, this participant infers a much larger group of people who do not use trains. This challenges the dominant narrative that justifies HS2 in terms of an absolute, and soon to be reached, capacity of the existing network which argues that more trains are needed because more will people want to use them. An alternative perspective is developed in this excerpt which uses passenger numbers from HS1 to take a more a relative view of train users as a proportion of the overall population. In doing so this questions the need to build a railway for the benefit of this relatively small number of people.

4.4 Making changes to a controversial route

The precedent shown in Figure 9 calls upon the Ministerial prerogative that was employed during the planning of HS1 whereby the Transport Secretary of the day had intervened to divert the line away from the controversial route that was originally proposed.

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I would say to her, and to my right hon. Friend the Secretary of State, that they should look at the process that was involved with HS1. The then new Secretary of State, my right hon. and learned Friend the Member for Kensington (Sir Malcolm Rifkind), very late in the day, called in all the evidence and changed the route . That route, which had been designed by British Rail, went right through south London and was going to blight large numbers of houses, and he changed it at the very last minute. If he had not done so, Stratford International would never have come into being and the Olympics would never have taken place. I say this to my right hon. Friend: do please look at the route, because if we are spending this vast amount of money, let us, as a nation, get the maximum out of it .

Geoffrey Clifton-Brown (The Cotswolds, Con) HoC, 2013:c392

source	attribute	effect
HS1 route	last minute Ministerial intervention to change the route	reduced blight and maximised the benefits

If we look at *route selection* (which for HS2 has already been made) from the perspective of *HS1* (where the Minister made a late and radical change to the one originally proposed) then it's not too late to change the route of HS2 to make it better.

Figure 9 An excerpt from the HS2 debate showing HS1 as a precedent to encourage the Secretary of State to intervene and modify the route.

The ramifications of this action are then developed to suggest that it produced unintended benefits that brought the Olympic Games to London in 2012. This is presented as an example that shows how to diffuse controversy and at the same time bring about wider benefits. These benefits are identified as applying to the whole nation.

4.5 Managing environmental impact of HS2

In a similar function to the precedent of Victorian railway design described above, the excerpt in Figure 10 shows HS1 being used as a precedent that demonstrates the principles of good design that should be followed when the railway is eventually built.

I am grateful to my hon. Friend for that intervention. I took the opportunity to visit the route of High Speed 1 and saw the noise mitigation measures that had been put in place. The noise of the trains is not much more audible than that of an A road or other minor piece of infrastructure

Iain Stewart (Milton Keynes South) HoC, 2013:c363

source	attribute	effect
HS1	Noise mitigation measures	High speed rail is quiet

If we look at *noise mitigation measure* from the perspective of *HS1* then HS2 will be almost as quiet as a road

Figure 10 An excerpt from the HS2 debate showing HS1 as a precedent to demonstrate the low noise impact that high speed lines have on the environment.

In this excerpt the measures used to mitigate against the noise of the railway line are called upon to inform how this should also be done for HS2. This is a reframing process that shifts HS2, usually described as a major piece of infrastructure, into something inaudible and minor. This shift is achieved through the proposed adoption of practices employed in HS1.

4.6 The benefits of HS2

The relationship between HS2 and the potential capacity problem in the railway network was noted in the precedent in section 4.3 above. The precedent in Figure 11 below focuses on a second major justification used for HS2 that promotes the benefits of the high speed capabilities of the new railway line and the shorter journey times that these speeds provide.

<p>The Secretary of State described the business situation in Kent, an issue that, as a Kent MP, I should like to touch on. It is impossible to imagine how east Kent can be regenerated without the benefits that High Speed 1 brings. I sit in meetings with the regeneration group that looks at the east Kent regional growth zone, and selling the benefits of High Speed 1 and the lower journey times into London is the single biggest advantage we have. As the Secretary of State pointed out, the HS1 line runs only as far as Ashford into London; the rolling stock running from Folkestone, Dover and Canterbury into Thanet is also a massive source of regeneration.</p> <p style="text-align: right;"><i>Damian Collins (Folkestone and Hythe) (Con), HoC, 2013:c403</i></p>		
source	Attribute	effect
HS1	lower journey times into London	a massive source of regeneration
<p>If we look at the speed of journeys into London from the perspective of HS1 then HS2 will be a source of regeneration</p>		

Figure 11 An excerpt from the HS2 debate showing the regenerative effects of faster journey times into London.

This participant suggests that the high speed connections into London provided by HS1 are a major source of regeneration in the areas served by those services. This proposes a direct correlation between the high speed of the passenger services proposed for HS2 and the economic growth that is predicted for the areas around its stations and services that connect to them. The economic impacts of HS1 are called upon in several other instances through the course of the debate. Underlining the controversial nature of the debate, the same precedent is also used by an opponent of the project to demonstrate that the high speed connections into London provided by HS1 have made no impact on the deprived areas of Kent they serve (HoC, 2013:c389)

4.7 Participants’ reflections on their own precedents

The final example in this section shows a more reflective position adopted by participants. In the excerpt in Figure 12 the use of precedents as a way of exploring the debate is questioned by identifying fundamental differences between HS1 (along with two other precedents that are found in the HS2 debate) and HS2.

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<p>We have also heard comparisons with the motorway network, the Jubilee line and HS1. They were all very much resisted at the time, but every single one of them was unique in its own way. For motorways, there is a junction every few miles, so everybody benefits from them; they undoubtedly promote growth in our economy. Likewise, the Jubilee line has many stops, and therefore benefits a huge swathe of the population. HS1 is unique in the sense that it was the link to mainland Europe. HS2 is none of those things; it is a decision that we have taken in isolation.</p> <p style="text-align: right;"><i>Andrea Leadsom (South Northamptonshire, Con), HoC, 2013:c380</i></p>		
source	attribute	effect
HS1, Jubilee Line, Motorways	all were resisted and eventually built but also had unique attributes	HS2 debate should not depend on precedents
<p>If we look at <i>how we are debating HS2</i> from the perspective of <i>numerous different precedents</i> then we can see that because of the differences between them <i>these precedents are irrelevant</i>.</p>		

Figure 12 In this excerpt the participant explicitly lists the reasons why other infrastructure precedents are not relevant to the debate about HS2.

These differences, it is suggested, make any comparisons that attempt to draw upon these precedents as irrelevant and thereby questions the validity of the decision making process that includes them.

5. Discussion

The selection of precedents examined above follows the transcript of a single debate from the Parliamentary record. They show how a single precedent, from the many examples identified in the debate, is used to present a different perspective on the Parliamentary procedure, the need for a new rail line, the controversy that the new line provokes, the way that the line should be built and the benefits that it will bring. The participants are also shown to reflect on how precedents have been used in the debate. Having described these examples of precedent in detail, using the method proposed, the following discussion takes a broader view of how they work within the debate and proposes a set of functions they can be seen to serve.

The stages described above provide a method for establishing where and how precedents are used in a debate. The reframing narrative, based on Dorst’s view of framing as a design process, resonates with earlier notions of design and framing identified by Schön. As a reframing process that calls upon prior examples, it also resonates with the notion of precedent developed in design literature. There is a notional identification of the before and after state, a general definition of design recognised by many authors. Looking at the use of precedents in this way appears to be a useful way of approaching a debate. However, despite these connections with design literature this does not, in itself, necessarily identify the use of precedent as a “design” process.

To examine this connection in more detail, in the case of the first example shown above, the precedent of the Victorian railway functions as a reframing device that invokes a shift in

perspective. It also operates as a clear design precedent, calling upon the aesthetic qualities of earlier designed objects that will provide a shortcut from the potentially “ugly” to the demonstrably “fantastic”. Finally, there is an element of team identification within this excerpt where the participant draws a distinction between the ugly concrete blocks that are envisaged by opponents to the railway and a more sophisticated aesthetic approach that might be adopted by supporters of HS2. This identification goes further as it takes account of a wider notion of Britain as a nation of designers and engineers and Britain as a landscape that, the participant urges, should be shown off. The identity of HS2 supporters is thereby, through the use of this precedent, connected to the geographical fabric of the nation.

In other examples of HS1 identified in these excerpts the precedent was used as a direct shortcut to a solution to the problem of, for example, noise mitigation. Similarly, the problem of moving the HS2 bill through Parliament in a timely fashion and the problem of dealing with controversial opposition to the project were both also informed by reference to similar problems raised and dealt with in the earlier project. This use of precedent is similar to the use of design precedents reviewed in section two that call upon prior designs to help move existing projects forward.

The precedents above also demonstrate the characteristic of precedents that recall previous projects in order to consolidate the identity of the design team. This function is not identical to that seen by Lawson, where previously shared projects bolster the team identity, perhaps because the notion of the team in Parliament is more fluid and less well defined than in an architect’s practice. However, there is a related function where groups are identified with particular precedents and particular actions which consolidate an identity around which supporters and opponents of HS2 can gather. This manifests itself along party political lines, where the Government is accused of being inept, and also along much broader fault lines in society between, for example, the 59 million people who, it is claimed, do not use the railway network or the whole nation who benefitted from the Olympic Games and might then also benefit from a similar change in the route of HS2.

In addition to these similarities with the design shortcut and the design team building function of precedents there is a further characteristic that emerges from these examples, and others that can be seen in the full transcript. It is the nature of major infrastructure projects, such as HS1 and HS2, that large amounts of money and effort are needed to implement them and that until this is expended it is not possible to make key appraisals about the project such as how long it will take to build, how long it will take for any benefits to be delivered by it, and how much it will cost to get to that point. In this respect these projects, already controversial and intractable, are characteristic of the wicked problems of Rittel and Webber to which there is no immediate test of a given solution and every solution is a “one-shot” operation (Rittel & Webber, 1973:163). The conventional reiterative design model of prototyping is not possible on projects of this scale - there is no prospect of building a cut down version of a 120-mile long railway line between two major conurbations that could adequately appraise its performance or potential success or failure. While there is

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scope for engineers and planners to develop software models that predict behaviours and visualise the way it looks when completed, these models are idealised and contested. This last point is demonstrated in the above examples where the accuracy of capacity forecasts and projected economic benefits are questioned.

Precedents referring to concrete examples of previous practice are presented in the debate as an alternative to those contested models and to the impossibility of the prototype. Such precedents are invoked at will, at no cost, and they demonstrate specific attributes that can be called upon to inform the project under debate. They are created out of a shared knowledge of projects that are well known and they allow participants in the Parliamentary debate to explore futures that have yet to be created. The identification of the role of precedent as a kind of futuring device, as a virtual prototyping tool, further demonstrates the potential for design analyses of Parliamentary debate. This kind of analysis has the potential to generate insights into the detailed mechanisms through which debates progress, a broader vision of how nations are built and a methodological perspective on the way that design can be used to engage with that process.

A final point to be made is the nature of the data sources used. If we accept that these debates can be seen as a design process then these transcripts, and the video recordings of the debate that exist in the same archive, can be thought of as a rich source of design data readily available to be explored from any number of other design perspectives. Used in this way the Parliamentary archive can be seen as a socio-political stablemate of the common datasets based on design meetings found in more conventional design studies (e.g. Cross et al., 1996; McDonnell & Lloyd, 2009).

6. Conclusion

In conclusion, this study has shown that the adoption of a design perspective provides a way of interpreting debate, a kind of “design analysis” that offers insight into how the participants engage in the debate and how it progresses. This design analysis does not replace established modes of inquiry into Parliamentary activities such as the kind of Critical Discourse Analysis employed for example by van Dijk and others (Wodak & van Dijk, 2000) or ethnographies of the Houses of Parliament such as that undertaken by Emma Crewe (Crewe, 2015). However, the results reported here suggest that using design as an analytical approach can generate comparable or complementary insights. Aside from this analytical innovation the work also proposes that Parliamentary activity can be viewed as a design process and that the Parliamentary record can be seen as a source of design data. This last point has implications for the support of ongoing design studies, including the shared dataset projects of the Design Thinking Research Symposia, where access to naturally occurring real world design situations might prove difficult, expensive or methodologically problematic. The method of analysis and the treatment of data proposed in this paper does then, we argue, forge stronger links between design, research and society.

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