



**SWP 11/95 BROADENING VISIONS OF BPR: THE  
IMPERATIVE OF STRATEGIC INTEGRATION**

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# **Broadening Visions of BPR: The Imperative of Strategic Integration**

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## **Broadening Visions of BPR: The Imperative of Strategic Integration**

Management prescriptions seem come and go like the seasons. The arrival of every new prescription brings with it the claim that it has the ingredient which all others are lacking. Each is usually premised with the assertion that to achieve competitive advantage in the marketplace this is the medicine for your company. No wonder management are sceptical of new ideas. Indeed, this scepticism often builds to such an extent that the BOHICA (Bend Over Here It Comes Again) syndrome has become endemic in many organisations. Resistance is not with the initiative itself *per se*, but the fact that it will soon be forgotten only to be replaced by yet another initiative. Cynically, one might argue that this is due to management wishing to be seen to be doing something or, at least, demonstrating that they are familiar with the latest fashions.

Business process re-engineering is a “theme” which has been around since the late 1980s. Although it is now five years since the concept was popularised by Michael Hammer through the pages of *Harvard Business Review*,<sup>1</sup> it is still receiving tremendous attention in both the academic and popular management press. That it has outlived the life of many ‘fads’ would suggest that there is perhaps substance behind the hype which continuous to surround it. And BPR is firmly on the management agenda. A recent study reported that 69% of US companies and 75% of European companies have at least one re-engineering initiative<sup>2</sup> and is also gaining impetus in Japan.<sup>3</sup>

At the heart of BPR is the notion of discontinuous thinking - of recognising and breaking from the outdated rules and fundamental assumptions that underlie the design of organisations. Proponents stress that breakthroughs in performance cannot be achieved by cutting fat or automating existing processes but by challenging old assumptions and shedding old rules that made business underperform in the first place. While this may sound logical, by the end of 1994 BPR was attracting a good deal of criticism.<sup>4</sup> Indeed Hammer, perhaps BPR's most charismatic proponent felt the need to defend the concept.<sup>5</sup> He argued that most of the criticism is misplaced and is based 'on a misconception of what re-engineering really is, and much of the rest reflects a limited assessment of its significance.'

Yet, despite what its detractors might argue, it is perhaps for the first time in the history of management thinking that we have a theme which is receiving attention from all the management disciplines. Strategy, information systems, operations management, human resources, marketing, etc. are all studying the impact which the debate BPR is provoking is having on their disciplines and also what they can contribute to the debate.

The word *theme* is used consciously in relation to BPR. Back in 1980 similar sentiments were expressed in relation to information systems, now a management discipline in its own right. At the first International Conference on Information Systems, Keen<sup>6</sup> stated that '[a]t present, MIS research is a *theme* rather than a substantive field'. He further stated that in order for MIS to become a coherent research field there was a need to clarify the reference discipline underlying MIS, to better define the "dependent variable" and to build a cumulative tradition. Can similar arguments be made for BPR? Is it likely to develop into a field in its own right or will it become a philosophy like Total Quality Management (TQM) or Just In Time (JIT)?

This paper calls for BPR to adopt a more strategic context suggesting that such a strategic perspective must be adopted if progress is to be made. In order to frame this position, the paper first takes the reader on an excursion through the BPR literature<sup>7</sup> beginning by briefly examining how BPR has developed over the last five years and

focusing on some of the central debates. Second, it suggests that BPR is broadening in perspective and examines developments which are contributing to a new conceptualisation. Finally, the paper points to the need for greater strategic integration, a call which is being highlighted by organisations' experiences with BPR. However, in order to achieve this the paper proposes the need to articulate a process theory of the firm.

### **Central debates in BPR**

Without doubt, BPR is a powerful concept with its doctrine of radical performance improvement through a focus on reorienting the organisation around its processes. While such thinking challenges traditionally accepted principles of managing and organising, the concept of re-engineering has been coloured by various interpretations and hype. Even Hammer has contributed to the confusion by initially calling for 're-engineering work'<sup>8</sup> and later extending this to 're-engineering the corporation'.<sup>9</sup> In this section, current debates in the BPR literature are examined and an attempt is made to draw some lessons from these discussions.

#### *BPR is nothing new*

An ongoing debate, especially prevalent in the early literature, is that BPR is nothing new. The argument, which is usually advanced by its detractors, is that BPR is without novelty: a case of "old wine in new bottles". The suggestion is that BPR is little more than Organisation and Management (O&M) repackaged for the 1990s.

A reason for such an assertion is suggested by Jones<sup>10</sup> who argues that the concept itself remains surprisingly ill-defined, and that the principles of BPR promulgated by its leading proponents show considerable differences. Through an examination of the literature he highlights a number of significant contradictions, both within and between what he refers to as the various "theories" of BPR. For example, is it an essentially

“engineering” activity, or is it a “hearts and minds” exercise? How can the emphasis on top-down, senior executive leadership be reconciled with the concerns of empowerment? He addresses how these contradictions undermine the case for BPR and highlights some of the ways in which the BPR literature seeks to resolve them.

Yet the fact that BPR many not be entirely new may have some merit. Grint<sup>11</sup> disputes some claims to the novelty and internal coherence of BPR and argues that explanations for re-engineering’s popularity might be sought through an externalist rather than an internalist account. That is, that its popularity might best be explained not by considering the uniqueness or ‘inherent’ rationality of the ideas involved, an ‘internalist’ account, but rather through the ways in which the purveyors of re-engineering manage, in and through their accounts, to construct a series of sympathetic ‘resonance’ or compatibilities, an ‘externalist’ account. Building on these arguments, in a later paper<sup>12</sup> he considers why BPR might still be regarded as novel, and why the historical antecedents of BPR might be useful in accounting for its apparently limited success rate. Whether or not BPR represents a paradigm shift in a true sense of the word, Earl and Khan<sup>13</sup> conclude that ‘it still has value if applied with understanding’.

### *BPR versus other improvement philosophies*

There has been a steady stream of writings comparing BPR with other improvement philosophies. The arguments range from whether BPR is a transfer of the philosophy and techniques of JIT manufacturing for the shop floor<sup>14</sup> to the to comparisons with TQM<sup>15</sup>, operational research<sup>16</sup>, Socio-Technical Design<sup>17</sup>, and other techniques and approaches.

Other writers draw heavily on their reference disciplines when considering process improvement. Harrington<sup>18</sup>, in perhaps one of the better treatments of BPR, clearly draws his inspiration from experiences and lessons with TQM. Reading any work on Fast Cycle Response (FCR), which places heavy emphasis on process understanding,

cross-functional team work, etc., one could be forgiven for thinking that you were addressing BPR.<sup>19</sup>

While such discussions can be interesting at an academic level, they serve little to progress the development and implementation of BPR. Yet such comparisons can be useful in the sense that they permit lessons and experiences from previous philosophies to be drawn and applied in the context of BPR. This is especially pertinent when there are few cases from which to draw knowledge. The implications of BPR on various disciplines has been addressed by few scholars, notable exceptions being Schonberger's<sup>20</sup> implications for HR, van Acker *et al.*'s<sup>21</sup> discussion of the use of systems thinking in modelling and stimulating process flows, and Mumford's<sup>22</sup> treatment of socio-technical design and its lessons for BPR.

The overwhelming view is that there are new concepts in BPR as well as the presence of some older elements.<sup>23</sup> Building on this theme, Peppard and Rowland<sup>24</sup> argue that it makes sense for many of the principles of BPR be common with other performance improvement philosophies which have gone before, not least because they are proven and well understood. They argue that as each philosophy has elements which have proved useful over time, so subsequent philosophies build on that body of experience. As each new "fad" comes and goes it is important to distil the valuable elements of each and thereby assemble the appropriate "toolkit" for improvement from the complete body of knowledge available to business, a view which questions whether BPR is really a paradigm shift. Table 1 outlines the main elements of a number of improvement philosophies and compares them with BPR.

While this table is a useful start point to put BPR into context with these other philosophies it should be pointed out that it is to an extent mixing apples and pears. JIT, TQM and Simultaneous Engineering are all philosophies governing the way an organisation, or part of an organisation, works. While adopting these ways of working will serve to improve performance if implemented well, they are not improvement philosophies in the same way that Fast Cycle Response and BPR are. FCR and BPR have no prescriptions for the way organisations should work day to day but rather are

concerned with how organisations can get shift performance based on one way of working to another.



<b>ELEMENT</b>	<b>Total Quality Management</b>	<b>Just In Time</b>	<b>Simultaneous Engineering</b>	<b>Time Compression Management/ Fast Cycle Response</b>	<b>Business Process Redesign / Re-engineering</b>
<b>Focus</b>	Quality Attitude to customers	Reduced inventory Raised throughput	Reduced time to market Increased quality	Reduce time (time=cost)	Processes Minimise non-value-added
<b>Improvement scale</b>	Continuous Incremental	Continuous Incremental	Radical	Radical	Radical
<b>Organisation</b>	Common goals across functions	"cells" and team working	R&D and Production work as a single team	Process based	Process based
<b>Customer focus</b>	Internal and external Satisfaction	Initiator of action "pulls" production	Internal partnerships	Quick response	"Outcomes" driven
<b>Process focus</b>	Simplify Improve Measure to control	Workflow/ Throughput efficiency	Simultaneous R&D and Production development	Eliminate time in all processes	"Ideal" or Streamlined
<b>Techniques</b>	Process maps Benchmarking Self-assessment SPC Diagrams	Visibility Kanban Small batches Quick set-up	Programme teams CAD/CAM	Process maps Benchmarking	Process maps Benchmarking Self-assessment IS/IT Creativity/out of box thinking

**Figure 1** Comparison of BPR with other improvement philosophies (source: J. Peppard and P. Rowland, *The Essence of Business Process Re-engineering*, Prentice-Hall International, Hemel Hempstead, 1995, p. 16).

*The role of information technology*

Since the phrase 'business process redesign' was coined there has been an ongoing debate concerning the role of information technology (IT). BPR as a phenomenon was observed and labelled at the Massachusetts Institute of Technology (MIT) *Management in the 1990s Research Program*, which focuses on examining the role which IT would play in organisations' during the 1990s.<sup>25</sup> The MIT researchers used the term quite precisely to describe the use of IT to transform the way in which an organisation works internally rather than simply to automate the way it already worked. Venkatraman<sup>26</sup> saw BPR as one level of what he referred to as 'IT induced business reconfiguration', although in a recent paper the word *induced* was replaced by *enabled*<sup>27</sup>, a subtle, but significant distinction.

A similar de-emphasising of the central role of IT has also been expoused by Hammer. In his initial definition, specifically defined BPR as "using the power of information technology..."<sup>28</sup> In his book with Champy<sup>29</sup> the reference to IT was omitted from this definition. Contrast this with Davenport<sup>30</sup>, who in acknowledging that "information and IT are rarely sufficient to bring about process change" (p. 95) proceeds to assert that "...the use of IT for process innovation [is] a virtual necessity" (p. 44). In this regard, a number of authors have used the term information technology enabled business process redesign to specifically refer to the use of IT to change organisational processes for substantial improvement.<sup>31</sup>

The general consensus is that IT is seen as an enabler (although there appear to be different definitions of enablement from "doing" to "supporting") and a creator of opportunities. IT permits new ways of working and organising which are not possible manually.<sup>32</sup> The key argument in support of the enabling theme is the lack of sustainable competitive advantage from IT.<sup>33</sup> Business advantage through IT is relative and in most industries you cannot exist let alone excel without it.

Despite this, both hardware and software vendors have not been slow in promoting BPR as a way of unlocking the potential of IT. They are capitalising of the

disappointment which managers have with their IT investments and the general consensus that they are not getting 'value for money'. Economists speak of a 'productivity paradox' to describe the huge investment made since the early 1980s in technology while at the same time the productivity of the white collar worker has remained relatively unchanged.<sup>34</sup>

Surveys of the role of IT in BPR have reported that IT plays an important, if not central, role in each stage of a re-engineering effort.<sup>35</sup> These roles include educating other members of the re-engineering team about leading edge information technology and how it can be appropriately applied to business processes, selection and use of business process and data modelling tools<sup>36</sup>, and to build the systems that are envisioned by the re-engineering team. Prager and Overholt<sup>37</sup> discuss the role of the IS organisation as a change agent and the implications which this has for the IS organisation.

What BPR has highlighted is the need to first get the process right before implementing IT.<sup>38</sup> Although some argue that with technologies like workflow, existing processes can be automated prior to redesign and capitalising on the power of the software, the process can be re-engineered at a later stage.<sup>39</sup>

The critical problem which "legacy systems" poses for re-engineering has received little attention with a few notable exceptions.<sup>40</sup> This is undoubtedly due to the fact that the 'clean sheet' approach to redesign of processes also assumes that systems can be redesigned through a similar approach. The reality is that organisations have large investments in IT and that major re-writes to existing systems can endanger redesign efforts by becoming too large to contain. As Heygate<sup>41</sup> points out that "time after time, the potential value to be unleashed through redesign remains stacked up behind IT bottlenecks, months if not years after implementation should have been complete."

One of the arguments often put forward in support of the re-engineering of business processes is that outdated practices which have been rigidified through a succession of IT investments can be obliterated through BPR. Yet the issue that these processes

themselves may become rigidified and inflexible through the use of the very technology that will enable them is a very likely scenario.

### *The implications for human resources*

The process of re-engineering, particularly the resultant organisational form, has profound implications for HR.<sup>42</sup> For example, career development, pay and rewards, recruitment, training, etc. Experiences in BPR echo Lawlor<sup>43</sup> who argues that the traditional focus of 'the job' as the building block of organisations has been superseded by the view that the individual is what's important; and BPR certainly impacts the individual. Wilmott<sup>44</sup> laments the lack of consideration given by the BPR literature to the human aspects of organising. Focusing on the re-engineering of human resources, he argues that the transition from specialist function-based to business process-oriented organising practices necessarily depends upon 'human resources' who enact, and are also (re)constituted by, BPR.

Research has clearly shown that capability within an organisation can both enhance and constrain a re-engineering initiative. A recent survey suggested that there was a link between success and a supportive culture.<sup>45</sup> Understanding and acceptance of the need for change together with the ability to change culture have been seen as facilitators of BPR efforts.<sup>46</sup>

## **Broadening perspectives of BPR**

In addition to the debates highlighted above, BPR would seem to be broadening its scope from its initial narrow, internal and analytic focus. The honeymoon period is over and preliminary speculations are giving way to emerging research results, reality is dismissing myths while practice and greater understanding are advancing the boundaries of the application of the concept.

Recent research has yielded valuable insights, notably Jarvenpaa and Stoddard's<sup>47</sup> research based on interviews with more than 200 companies as well as rigorous research on 35 re-engineering initiatives; Hall *et al.*'s<sup>48</sup> study of over 100 re-engineering initiatives; Drew's<sup>49</sup> survey of BPR implementations in financial service organisations in North America and Europe; the European Union sponsored COBRA (Constraints and Opportunities in Business Restructuring - an Analysis) project exploring the link between BPR and new ways of working which used information on over 100 European BPR exercises<sup>50</sup>; CSC Index's survey of 624 US and European companies<sup>51</sup>; and Dixon *et al.*'s<sup>52</sup> analysis of 23 re-engineering projects.

In many ways re-engineering has been the catalyst for what might be considered the beginnings of the convergence of the management disciplines. As eluded to earlier, perhaps for the first time in the history of management thinking there is a theme which is having profound implications on management and organisation thinking. While the three words may fade, the fundamental forces driving towards this re-appraisal are here to remain. Davenport and Stoddard<sup>53</sup> suggest 3 options for re-engineering's future. Firstly, another synthesis of ideas will emerge that includes the precepts of re-engineering with others. Second, re-engineering will be absorbed into existing change methods. Third, re-engineering will be combined with quality and other process-oriented improvement approaches into an integrated process management approach.

Whatever the final outcome, evidence from the literature would suggest that BPR is shifting ground from its original manifestations. The initial focus on re-engineering work is broadening and in this section these movements are charted and explored

### *From rhetoric to reality*

The language used in relation to BPR is undoubtedly revolutionary in tone. The words and phrases are specifically chosen to reflect the radical connotation of the theme. Words like transformation, radical, violent, innovation, and obliterate are central in the vocabulary of BPR. Yet in reality, while most re-engineering initiatives may have

radical performance improvement as an objective, the route that has been taken is much more incremental.

This duality between radical performance and radical change is not a simple matter of being necessarily bound up together. Radical change, particularly if not managed, can have devastating consequences. The reality is that while radical performance improvement is sought, it is usually not through big-bang changes, but rather through a much more incremental approach. Change is continuous rather than a static event as suggested by proponents of the radical view. Questioning some of the assertions and revolutionary rhetoric in his book Davenport has recently argued that rarely is clean sheet change found.<sup>54</sup> Since the publication of their book Hammer and Champy have been reported as differing on this issue with Hammer continuing to expound how violent the re-engineering process needs to be.<sup>55</sup>

Japanese experiences of Just In Time, an improvement philosophy centred around the notion of process, clearly shows that the tremendous achievement which Japanese companies have achieved have been over an extended period of time. Shiego Shingo has pointed out that 'it took Toyota twenty years to develop JIT fully, and others will require at least 10 years to obtain satisfactory results'.<sup>56</sup>

Perhaps what this highlights is that organisations have different capacities to absorb change. It has been suggested that organisations who have a TQM or customer care program in place are more likely to succeed.<sup>57</sup> Other organisations may already have a culture which fosters and supports teamworking and empowerment. Readiness for change is therefore clearly an important consideration, and frameworks have been developed to help in assessing an organisation capacity for BPR.<sup>58</sup> Of course, organisations in crisis may have no choice but to change and quickly.

*From analytic to holistic*

The dominant logic adopted by most of the early papers on BPR is analytic. They approach the process based organisation quite prescriptively, with an underlying assumption that processes can be pulled apart and rebuilt almost like a lego™. This orientation can be traced back to BPR's roots in the domain of IT<sup>59</sup> and its initial label as 'the new industrial engineering'.<sup>60</sup> This is certainly in conflict with the need to move towards a more integrated philosophy in managing organisational change, particularly when dealing with people. And evidence from research and experience bears this out.

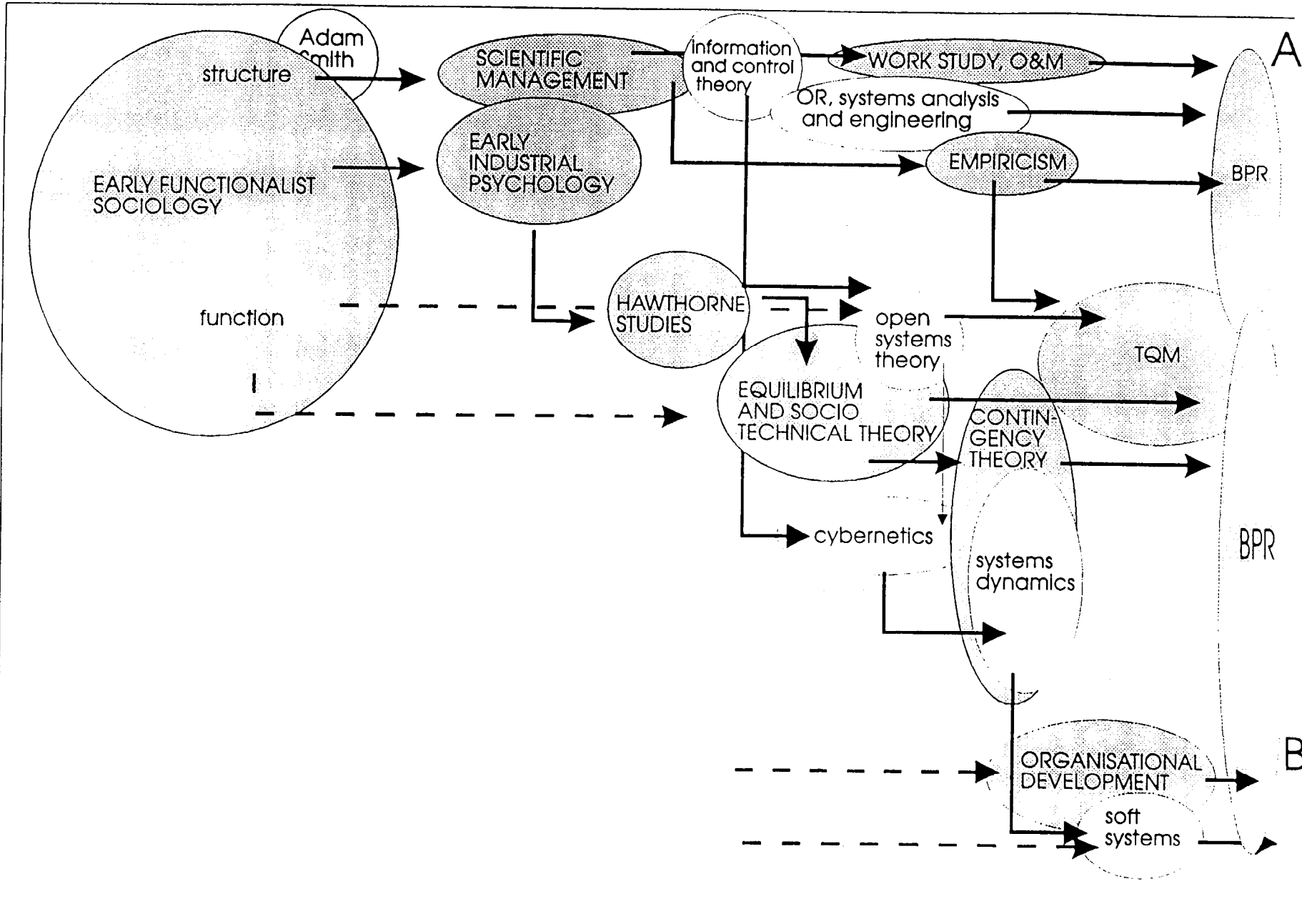
Figure 2 attempts to position BPR in relation to the dominant themes in organisation and management in order to identify the intellectual inheritance of BPR.<sup>61</sup> As this figure illustrates, early manifestations of the concept were clearly drawn from mechanistic thinking on organisational engineering, chiefly centred around IT and industrial engineering (blob A). It is not surprising that it drew on these areas for guidance, subscribing to the structured and mechanical philosophies underpinning systems analysis and O&M. The focus on IT-enabled business process re-engineering meant an implicit inheritance of the tools and methods used to develop IT which were then used to redesign business processes.

The lessons of implementation have clearly shown that consideration must also be given to the more softer issues. The redesign process may be treated as a mechanical exercise but implementation is dependent on both harder (for example, design of software systems) and softer (for example, changing work practices) aspects. In effect, BPR is now drawing on a breadth of thinking and practice for guidance. A more holistic view of BPR is now portrayed, drawing on antecedents in both hard and soft disciplines (see blob B).

Yet the call for a holistic view of organisations is nothing new and was the central message preached by systems theory<sup>62</sup>, systems dynamics<sup>63</sup> and again reinforced by organisational models which highlighted the integrative nature of organisations such as those proposed by Leavitt<sup>64</sup> and Pascale and Athos.<sup>65</sup>

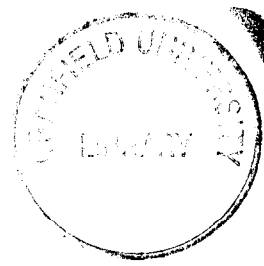
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intellectual development of BPR.





*From re-engineering the job to re-engineering mindsets*

The importance of the human element in the success of a re-engineering initiative has already been highlighted. The required changes in motivations, attitudes, skills, knowledge, and work practices have profound implications for the individual: change can be intensely personal.<sup>66</sup> Champy has asserted that in his book with Hammer they did not appreciate the degree to which management would have to change in order to be successful at re-engineering.<sup>67</sup>

Grint<sup>68</sup> argues that for re-engineering to work as a radical and long term change the focus should be more about re-engineering the way managers think and work as about re-engineering the way processes operate. Similar sentiments have been expressed in the strategy literature by Hamel and Prahalad<sup>69</sup> who see long term competitiveness depending on managers' willingness to challenge continually their managerial frames, by Bartlett and Ghoshal<sup>70</sup> who assert that to work in the new organisation requires a change in mindset and by a number of scholars in relation to interorganisation linkages.<sup>71</sup>

It is in relation to this call for the re-engineering of mindsets that Tinaikar *et al.*<sup>72</sup> argue for a broader and more balanced approach to BPR through adopting a social constructionist perspective. The call for the 're-engineering of re-engineering', proposing that BPR 'is the *reconstruction* of organisational processes through a *mutually integrated effort* by various organisational coalitions to achieve and maintain *negotiated improvements*.' Reconstruction emphasises that BPR is an intentional effort to change a 'constructed' process and highlights the social dimension involved in the creation and maintenance of organisational processes, i.e. relationships of processes, technology, people, objects, etc., and how change in such relationships impacts much more than organisational efficiency.

*From internal process to external network perspective*

A legacy of MIT's 'Management in the 1990s' research project is that a clear distinction now exists between BPR and what is usually referred to as business network redesign (BNR). While BPR was clearly focused on the redesign of internal organisational processes, business network redesign is concerned with the wider business network. The underlying premise is that the firm is just one entity in an industry value system. Business network processes are those processes which extend beyond the boundaries of the organisation into suppliers, customers, regulators and alliance partners. Such processes may also cross national boundaries.

In reality this distinction is not as clear. Re-engineering the link between two organisations will usually demand significant re-engineering of their internal processes. The ultimate aim of re-engineering the supply chain should be the construction of one seamless process. Indeed, the JIT philosophy is premised on this objective.

Similar sentiments have been expressed in the strategy literature. Normann and Ramirez<sup>73</sup> argue that a sequential value system, together with a fixed set of activities, is no longer appropriate. They suggest that the key strategic task is the reconfiguration of roles and relationship amongst this constellation of actors in order to mobilise the creation of value in new forms and by new players. Observations in support of this thesis have been made by Venkatraman and Short<sup>74</sup> who in an IS historiography of Baxter Healthcare, illustrate how redesigning external processes had the potential to redefine its business scope and reposition the firm in the industry value chain. Indeed, many of the famous, supposedly competitive-edge IT systems of the 1980s in fact represent a long-term investment in business process capability.<sup>75</sup>

*From re-engineering organisations to re-engineering business*

The inward looking perspective of BPR has clouded the profound influence which IT and new management strategies are having on the nature of business itself. By

reducing the costs of co-ordination, IT is leading to an overall shift towards proportionately more use of markets - rather than hierarchies - to co-ordinate economic activity.<sup>76</sup> The effect of this is to change the very nature of business itself. Rayport and Sviokla<sup>77</sup> discuss the implications of the migration from the traditional 'marketplace' transaction to what they call the 'marketspace' transaction in terms of content, context and infrastructure.

Davidson<sup>78</sup> sees BPR as the first of a three-phase transformation process that starts with structured automation and re-engineering efforts, building on new infrastructure and capabilities to enhance and extend the original business, and then redefines it to create new business. This is in contrast to Venkatraman<sup>79</sup> who is explicit in asserting that the move through BPR to BNR to business scope redefinition is not a sequential. He argues that a company can approach BPR from two different, and sometime contradictory, perspectives.<sup>80</sup> The first avenue is to seek efficiency, which is the thrust of the majority of efforts. The second avenue, is to re-engineer to enhance capabilities which aim to create strategic capabilities for future competition.

*From re-engineering processes to strategic integration*

The seminal literature on BPR is clearly centred on re-engineering business processes and associated implications. While this still remains the focus, the linkage between re-engineering and business strategy is becoming increasingly recognised.<sup>81</sup> Many re-engineering initiatives are undertaken without any direction from the organisation's business strategy. The case of insurance company Mutual Benefit Life is perhaps indicative of a company which successfully re-engineered its process to issue a life insurance policy, reducing the time from 24 days to 4 hours.<sup>82</sup> While this re-engineering initiative has definite benefits, shortly afterwards MBL filed for Chapter 11 Bankruptcy. MBL misread the implications of the depression in US real estate prices and the corresponding impacts on public confidence in its financial position. A streamlined process had no impact on the firm's survival. The re-engineering of Ford's accounts payable process, probably the most widely quoted BPR example, is indicative of re-engineering a process without having any significant impact on the bottom line. Similar observations have been made by Womack and Jones<sup>83</sup> in relation to the implementation of lean production.

The strategic context of the re-engineering initiative is therefore paramount. For example, there is not much point in a record company re-engineering its manufacturing process if its future competitor is a cable company downloading selections on cable. While strategy can give direction to BPR, there is also a crucial link between an organisation's resources and its business strategy. In short, it does not make sense for an organisation to launch a particular business strategy if it is unlikely to be able to develop the competencies to implement it and bring it to fruition.

Processes can provide a focus for strategy. For example, during a recent strategy review,<sup>84</sup> one regional newspaper identified a long list of actions required to help move the organisation from where it is now towards where it needs to be to achieve the business strategy. Most of these actions did not fall within the typical range of responsibilities assumed by the existing functional departments. They either spanned across several (or indeed all) departments, or they would not be captured by any of the

departments. This means that, routinely, these activities would not be picked up. It also highlights that if management had decided that each department should now come up with the functional plan to support the mission, many of these activities would probably not have been identified. In this sense, the existing structure can only deliver the existing strategy. The company was stuck in old routines.

In order to overcome these concerns, Edwards and Peppard<sup>85</sup> make a distinction between business re-engineering and business process re-engineering. Illustrated in figure 3, business re-engineering involves the development of an organisational architecture and it entails identifying and linking the strategy of the business with the required organisational processes to ensure that this strategy is actually delivered. With this perspective, the organisation engages in a fundamental re-thinking and redesign of the business and its underlying processes. This is very much a top-down view driven by senior management. Business process re-engineering, on the other hand, refers to the redesign of any organisational process. This can include anything from a total supply chain process to a single process within an individual function or department.

<b>Business re-engineering</b>	<ul style="list-style-type: none"> <li>• aligning processes to the business strategy</li> <li>• high-level view of the organisation and its underlying processes</li> <li>• identifying a small number of processes</li> <li>• defines the business architecture</li> </ul>
<b>Business process redesign/re-engineering</b>	<ul style="list-style-type: none"> <li>• redesign of individual processes for step improvement in performance</li> <li>• usually relates to high-level processes although principles apply to all processes</li> </ul>

**Figure 3** Business re-engineering v. business process re-engineering (source: adapted from C. Edwards and J. Peppard, 'Business process redesign: hype, hope or hypocrisy?', *Journal of Information Technology*, 9, 1994, pp. 251-266).

## **The imperative of strategic integration**

Organisations traditionally seek strategic integration by aligning functional strategies with the business strategy. The assumption is that in so doing, the individual functional strategies are themselves aligned with each other. However, on examining the strategic documents of most companies, one quickly discerns that they are typically no more than the strategic statements of functional units prepared individually with little or no debate on how these key perspectives interrelate with one another. The need to identify the level of match or mis-match which exists between functional strategies is at the very core of corporate strategy formulation. Only through this interchange can a company reconcile differences, identify implications and assess investments and timescales. Only in this way can firms arrive at well-thought-through, well articulated and co-ordinated corporate strategies which all functions understand, have agreed and will be able to support.

Strategy itself has recently been subject to self assessment. Many scholars have become disillusioned and are concerned about the direction of strategy research and practice.<sup>86</sup> Nobody is arguing that strategy is not important, rather there has been a call for strategy paradigms to be re-examined. Prahalad and Hamel<sup>87</sup> have suggested that concepts and tools of analysis may need a basic re-evaluation. They suggest that many of the assumptions embedded in traditional strategy models may be incomplete and/or outdated as we approach the new competitive milieu. Such assumptions include: strategy is about positioning a business in a given industry; the focus of strategy tools and analysis is existing industries; the primary focus of strategic analysis is the business unit; strategy outcomes can be explained on the basis of economic analysis; and strategy is the result of an analytical process, execution of strategy is an organisational process.

The notion of strategic alignment has been proposed as a framework to ensure the alignment of IT with business strategy.<sup>88</sup> While there are variations in the interpretation of strategic alignment, in the main the literature focuses on the alignment of IT with business strategy. Yet this has always been the task of information systems planning.<sup>89</sup>

Venkatraman and Henderson take a somewhat broader perspective of strategic alignment yet the underlying emphasis is to alignment IT with the business. Their argument is premised on the fact that the inability to realise value from IT investment is, in part, due to the lack of alignment between the business and IT strategies. The alignment model which they develop is for conceptualising and directing the emerging area of strategic management of information technology. Their concept of strategic alignment is based on two building blocks, strategic fit and functional integration, emphasising 'organisational' processes. In relation to strategic fit Hamel and Prahalad<sup>90</sup> see the concept of stretch as supplementing the notion of fit, contending leveraging resources is as important as allocating them and in bridging the gap between resources and aspirations.

*Re-engineering as an alternative strategy perspective*

Hammer<sup>91</sup> sees re-engineering offering ‘an alternative perspective on formulating strategy, one based on operating processes rather than on products and markets’ (p. 96) a view which is shared by others.<sup>92</sup> Operations provides the ‘do’ to complement strategy’s ‘what’ and ‘how’. Without these elements the search for sustainable competitive advantage is likely to be a fruitless one. Strategy sets the direction for the enterprise but it is through processes, people and technology that the strategy “lives” for customers, suppliers and staff alike. Yet, if we examine the kernel of this argument it is precisely what the resource based theory of the firm is advocating.<sup>93</sup> This perspective analyses firms from the resource side rather than from the product side, which traditional approaches are grounded and is perhaps best captured by the notion of core competencies.<sup>94</sup> Originating in the strategy literature, it proposes that what sustains competitiveness is not a firm’s endowments, but its competencies. Competencies are combinations of resources (physical assets, people, brands, reputation), systems (codified means of deploying or activating the resources, e.g., the manufacturing system), and know-how (a non-imitable capability enabling the firm to deliver a competency). The difference between Hammer’s view of re-engineering and that of those who subscribe to core competencies is Hammer’s lack of strategic context and the criticality of linking BPR with business strategy.

Despite the call for strategic integration, management has lacked a mechanism which provides a focal point for this integration. A process perspective provides us with such an integrative perspective. Taking such a perspective provides a view of the organisation which cuts across traditional functional and departmental boundaries. To enact such a vision requires a process theory of the firm, a theory yet to be elaborated.

**Towards a process theory of the firm**

Over the years many perspectives of organisations have been proposed. Organisations have been viewed as behaviours<sup>95</sup>, decisions<sup>96</sup>, network of roles<sup>97</sup>, and cultures.<sup>98</sup>



More recently, we have seen the emergence of a resource based theory of the firm referred to above. These have all proven useful in examining and understanding organisations

In developing process theory of the firm three key questions must be addressed. Firstly, a more thorough treatment of the concept of process is required beyond the superficial treatment it currently receives. Second, a theory of how to identify processes, classifying them and select appropriate management strategies for each process type. This must also ensure that strategic integration is achieved by linking strategic direction with organisational processes. Thirdly, a theory of process management which will outline good practice guidelines for managing in the post-BPR organisation processes.

### *Processes*

Despite the central focus of process in BPR, the concept has received little attention in the literature, with the exception of Scheer<sup>99</sup>, Perry and Denna<sup>100</sup> and Harrison.<sup>101</sup> Intuitively, we all know what a process is yet the identification of processes for redesign is one of most difficult areas in any redesign initiative.

In fact the definition and meaning of the word "process" itself is still avoided by most of the writings. Harrison<sup>102</sup> contends that this lack of clarity casts some doubt on the credentials of BPR and its ability to deliver quantum leaps in performance. The impression given is that identifying processes is easy, yet any one who has ever attempted to do this will no doubt have a different story to tell. In a refreshing paper Scherr<sup>103</sup> uses the theoretical framework of Winograd and Flores<sup>104</sup> in an attempt to come to a definition of process. The technique he proposes defines a business process as a series of customer-supplier relationships that provide specific results at specific points in time. It is the nature of the communication between participants which is the foundation of the proposed approach. While an interesting perspective, clearly much more work is still needed in this area.

*How to integrate processes with business strategy*

On the relationship between business strategy and process, Stalk et al.<sup>105</sup> suggest that competencies are processes which are 'strategically understood'. However, competencies are not processes but processes are the vehicle through which competencies are articulated. However, given that competencies can often be tacit, defining processes can be a task fought with difficulty.

Organisations also have a 'portfolio of processes'.<sup>106</sup> Various schemes have been proposed to classify processes<sup>107</sup> but a fundamental criticism of these schemes is that they focus on what the process does rather than the role processes play in delivering business benefits. They also say nothing about the importance of processes: for example, two organisations may have product development and launch processes, but the strategic significance of this process to the businesses may vary considerably. Edwards and Peppard<sup>108</sup> suggest that organisations have four types of processes, categorising them in relation to the contribution which they make to delivering current and future business strategy. They have also outlined strategies for managing each kind of process and how processes migrate through time.

*Process management*

How do organisations manage the result of a re-engineering initiative? How does it begin to manage processes as opposed to functions? What comes after re-engineering? In TQM, for example, process management is seen as a specific discipline that supports TQM.<sup>109</sup> It relies on feedback from measurements, assessments and other analysis to guide improvement activities.

Yet it should not be forgotten that traditional functions do have advantages. They foster specific knowledge and skills providing a pool of expertise, vital for

specialisation of labour benefits and can mean fewer specialists may serve the needs of a number of areas. Functions also provide the means to develop career paths which enhances specialist excellence.

Therefore we have a continuum, where at one end is the functional based organisation. At the other is a process oriented organisation. Where should organisations position themselves? Indeed, people are asked to become members of teams, not because they are generalists but rather due to the fact that they have specialist skills or knowledge. It is therefore likely that organisations will be composed of some configuration of processes and functions. Yet what form this might take is unclear. A suggestion by Womack and Jones<sup>110</sup> is that that career paths must be altered so that people can alternate between working as multi-functional team members and periods of intense knowledge-building within their specific departments.

## **Conclusions**

The 'horizontal organisation' is often portrayed as the organisation in which BPR is institutionalised.<sup>111</sup> But BPR is just one of a number of management trends currently in vogue to deal with new competitive challenges and new information technologies. New market requirements have precipitated the call for new organisational forms; concern in the strategy literature with the strategy process; the recognition of the social and human dimension of organisations; new information and communications technologies have profound implications on both organisations and in the conduct of business; the criticality of business operations as highlighted by experiences from Japan and the crusade for the lean enterprise.

It could be argued, however, that BPR has been the catalyst for bringing together much of what has been happening in the organisation and management arenas over the last decade. Perhaps the reason why many organisations have problems with BPR is that difficulty lies in bringing together all these elements under the one initiative. In this

paper it has been suggested that a process focus can provide an integrative mechanism but lamented the lack of a process theory of the firm.

The original concept of BPR related to improving how work was performed in organisations and by implication the performance of the business. But to paraphrase Prahalad and Hamel<sup>112</sup>, no matter how effective the body (the organisation) gets, it still needs a brain (strategic direction). Integration of BPR with a strategic context is therefore imperative.

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