

How the NHS could make money for Britain

An Illustration of the MyReports and MyCreativity ideation engine within Southbeach Modeller

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Introduction

This white paper illustrates one way to develop a Southbeach model from any opinion piece or news article. It illustrates how to develop interactive 'creativity' to explore the meaning behind the model, and so generate insights for inclusion in a consultant's report.

The article I have chosen as the basis of this illustration is Mark Britnell's opinion piece about the UK National Health Service (NHS), published in the *The Times* on November the 15th 2011. In the article, the author argues that the UK could make money from the NHS, by exporting UK expertise around the world, and so alleviate the burden on the UK economy.

Where to start?

I usually open a new model canvas in the Southbeach Modeller software and copy the entire text of the article (if available) into the Notes panel on the right. I then drag text fragments from the article to the canvas, in order to gradually build up the model.

As each element is added, I define it as either 'useful' (green) or 'harmful' (red), always taking the perspective of the original author. I do this to ensure that the logic of the model reflects their argument without distortion of perspective. Of course, other perspectives could be added, but for an exercise like this I always stick to a 'verbatim model' using the author's own words (at least initially).

I then read the text critically, identifying the stated contradictions in the situation. Here, the author asserts from the outset that the NHS provides great healthcare, but at a price that places an unnecessarily large burden on the economy. He asserts that in regard to managing chronic conditions, the NHS could do better. In Southbeach, this is modelled as 'useful but insufficient' (a dotted green box).

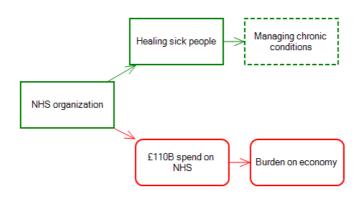


Figure 1 - The contradiction

¹ For TRIZ experts reading this paper, these may not be root contradictions, nor am I concerned, at this stage, as to whether they are 'technical' or 'physical' contradictions.

Note how, in Figure 1, the NHS organization is represented using a green box: useful. This is because, from the author's perspective, he views the NHS as a positive enabler of increased potential UK exports. He is not exploring an alternative to the NHS. If he were, I would model the NHS organization as harmful (red box).

In Southbeach Notation, green indicates you want more of something, red that you want less of something. So, in Figure 1 the model is saying we want more healing and less spend. Solving that type of contradiction is the objective of many TRIZ and Southbeach projects. As an element is increased, its effects increase - both good and bad: useful and harmful. Similarly, when you decrease something harmful any useful side effects are also reduced.

Back to the article:

Having modelled the main contradiction (or contradictions) in the piece, I usually add additional elements to capture the main thrust of the author's core argument. Here, he argues that instead of looking only at the costs of the NHS, NHS managers and the UK Department of Health should look at creating new value by exporting UK health and scientific knowledge and services around the world.

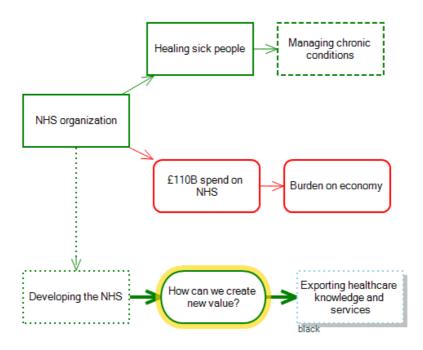


Figure 2 - The author's assertion

I've used the dotted line in Southbeach, 'potential', to indicate that the author's ideas are just that, ideas. They have not yet been implemented. And I've also distinguished his idea from the question he poses: "How can we create new value?" I use blue blocks, 'actions' in Southbeach, to represent the ideas that the author is bringing to the table. This is the way many consultants work when they are using Southbeach for a business change project. The consultant, with input from experts and

stakeholders, models the client's situation, their challenges and problems, and then shows how their own ideas can provide a solution (action).

As the model is taking shape, I used 'focus' (yellow border) to highlight important themes and I use 'emphasis' (thicker line) to show the main flow. These elements will then stand out when the other elements are added around them.

The eagle-eyed among you will have spotted that I tagged the author's main idea 'black'. This is because I later want to apply some 'black hat' thinking (devil's advocate) on that idea.

Tags are a feature of Southbeach Modeller and can be used to add additional information to a model. Creativity rules can then refer to those tags and include subsets of agents in patterns of output.

Having done this work, I then add 'scaffolding' from which I can hang other elements. In Figure 3, I add the issues relating to the funding of the NHS, and the author's assertions of what is required.

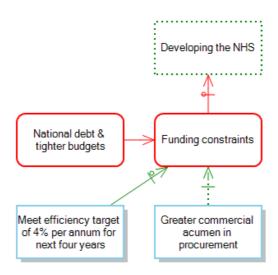


Figure 3 - Scaffolding is added

The figure states that the UK national debt is creating funding constraints on the NHS, which are counteracting its potential development. That effect line is marked 'inevitable' (the little circle) because the author does not see this as changing. For this reason, he asserts that the efficiency targets and the associated actions will happen (i.e. not 'potential') and that they will counteract the funding constraints to some extent. However, while he sees greater commercial acumen in NHS procurement as a viable action, its effect on the funding constraints are less certain. He may belief that NHS management needs to 'sharpen' its act and look beyond cost cutting, if new value is to be generated.

As one reads the author's article, he increasingly focuses on issues surrounding the culture of the NHS and suggests that new thinking and change is required. Let's add those elements now:

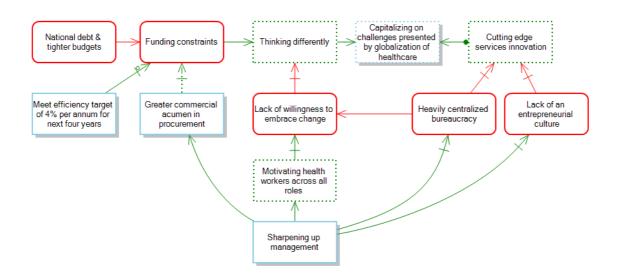


Figure 4 - Solutions are suggested

The author believes that funding constraints could themselves be the catalyst for bringing in new thinking (potential). And this leads him to suggest that there is an opportunity (idea) to capitalize on the challenges presented by the globalization of healthcare. He talks about the limiting (counteracting) aspects of bureaucracy and culture, arguing that management's role in change is paramount. The innovation suggested, he views as 'necessary' (small filled circle) if his ideas are to fly.

The completion of the model focuses on each of the 'ideas' in his proposal:

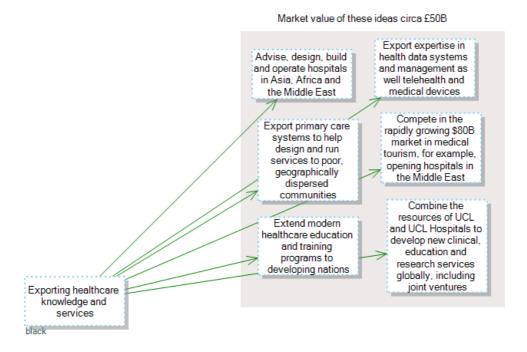
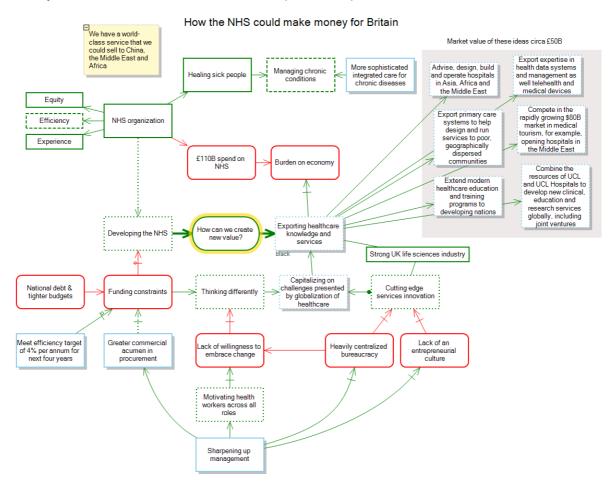


Figure 5 - Ideas and actions

To clarify the related group of ideas above, I used a filled box and labelled them with the aggregate benefit the author claims in the article.



Finally, I add a few more details to complete the picture:

Figure 6 - The complete model - just a few minutes work

Having developed what looks like a complete model, I go back and review the article once more to unsure that nothing important was missed. In Figure 6, the role of the UK life sciences industry has been added and linked to other agents using the 'related' effect (a simple line).

I used 'related' in this instance because, while the author referred to the role of UK science, he did not explain how its resources would be employed to bring his ideas to life.

Caveat: For this short white paper, I stress that the modelling work was done quickly (one hour) and that the author may disagree with the way I have presented his arguments. If you wish to make up your own mind about the author's ideas, I refer you to the original text in *The Times* newspaper.

Now comes the interesting part.

Why not a mind map?

While it is harder to develop a Southbeach model than it is to draw a mind map, the benefits of doing so are clear:

- 1. A mind map can only show the elements of the story in a simple hierarchy. A mind map cannot express the relationships between elements.
- 2. A mind map has no 'perspective', so cannot infer any conclusions or directions. By contrast, Southbeach models define what is 'useful' and 'harmful', 'sufficient' and 'insufficient', 'increasing', 'decreasing' etc. This enables a person, or a software tool, to deduce what could be done to improve the situation and realize the ideas.
- 3. In Southbeach, the lines drawn between the elements provide important knowledge about the nature of 'increasing' and 'decreasing' effects. This leads naturally to creativity suggestions and to ideation.

Your Creativity

Having developed a reasonable model, I then use the software tool again to add a summary report. This step helps check whether the model is logically correct. It is also helpful in cleaning up the text in the model. It is easy to make simple errors in perspective and linkage between elements. Reading the output from the report will reveal any errors immediately. Generating such 'creativity' from a model is a great way to validate and improve the model.

Appendix A below is a listing of the generated output. Appendix B gives the rules that were used to generate the output. Take a quick look at both now, and then read on.

Southbeach Modeller includes a rules engine. Using this tool, it is possible to document and apply your creativity to any model of any situation, potentially yielding insights and new ideas. How does this work?

Suppose that you believe that, in this situation, it is worth finding ways to cope with the problems the author identified in the NHS culture, you could write:

produces (*, harmful) "Find a way to cope with {to} while we tackle the cause {from}?"

The output from this rule would be:

Find a way to cope with £110B spend on NHS while we tackle the cause NHS organization? Find a way to cope with Burden on economy while we tackle the cause £110B spend on NHS? Find a way to cope with Funding constraints while we tackle the cause National debt & tighter budgets? Find a way to cope with Lack of willingness to embrace change while we tackle the cause Heavily centralized bureaucracy?

Similarly, suppose we added the rule:

counteracts (*, potential+useful) "How can we change {from} in order to allow {to}?"

The output generated would be:

- 1. How can we change Funding constraints in order to allow Developing the NHS?
- 2. How can we change Heavily centralized bureaucracy in order to allow Cutting edge services innovation?
- 3. How can we change Lack of willingness to embrace change in order to allow Thinking differently?
- 4. How can we change Lack of an entrepreneurial culture in order to allow Cutting edge services innovation?

Can you see how these 'directions' open up new thinking that was not present in the original article? It emerges because it is implied by the model when combined with the rules.

Not convinced? How about this one:

- 1. How can we realise the [Developing the NHS] more quickly?
- 2. How can we intensify the [How can we create new value?] without the [NHS organization]?
- 3. How can you prevent the [Heavily centralized bureaucracy] from producing the [Lack of willingness to embrace change].
- 4. Put measures in place to deal with the [Lack of willingness to embrace change].
- 5. Isolate the part of the [Heavily centralized bureaucracy] that is producing the [Lack of willingness to embrace change] and remove it.

By combining general-purpose creative rules with situation specific models, directions for innovation and problem solving are generated. Such rule sets can be written to emulate hundreds of creative tools and approaches, reflecting many different consulting practices. Many of these have been published in books, but not yet embodied in rule sets. As approaches like Southbeach mature, we see a market for assets and tools that foster the dissemination of best practices.

Rules can be written for many different purposes. In the next example, areas of the model are pinpointed where it would be useful to have additional information. The rules are:

produces (, harmful) "How does {from} produce {to}? What lies on the line?" counteracts (, useful) "How does {from} counteract {to}? What lies on the line?"

The output generated from the model is:

- 1. How does NHS organization produce £110B spend on NHS? What is the cause?
- 2. How does £110B spend on NHS produce Burden on economy? What is the cause?
- 3. How does National debt & tighter budgets produce Funding constraints? What is the cause?
- 4. How does Heavily centralized bureaucracy produce Lack of willingness to embrace change? What is the cause?
- 5. How does Funding constraints counteract Developing the NHS? What is the real problem?
- 6. How does Heavily centralized bureaucracy counteract Cutting edge services innovation? What is the real problem?
- 7. How does Lack of willingness to embrace change counteract Thinking differently? What is the real prob-
- 8. How does Lack of an entrepreneurial culture counteract Cutting edge services innovation? What is the real problem?

Reading these 'directions' may seem obvious, but do *you* see how they open up new thinking? Take one example: do we really understand how cost constraints, culture and bureaucracy can limit, or drive, innovation in the NHS? This issue was not discussed in the author's original article, yet it could be important, maybe even pivotal, to the debate.

Conclusion

The simple model illustrated in this paper was developed from a single news article. What if we had a more detailed model, integrating the perspectives of each of the main stakeholder groups in the NHS and its relationship to the life sciences industry? What if those models were then linked to rules, generating new creative directions? Would new ideas emerge? The evidence from applying Southbeach in other real-

world case studies suggests they would. We conclude that Southbeach is a powerful tool in the armoury of any good consultant or consulting team.

Appendix A - The Generated Report

The report below was generated from the model in Figure 6 using the 'creativity' rules listed in Appendix B. The generated output states the author's argument well but goes further in suggesting ideas for implementing change and realising the author's vision. The rules used to generate the report were not in the author's original article. They were developed for this paper and to illustrate the possibilities of Southbeach Notation. The task of creating these rules was not complex. In fact, the rules were written during the writing of this paper.

The approach I have described can be taken as far as one wishes, extracting more insights from the situation, based on creative interpretations of the model.

Report on: Exporting the NHS

We have a world-class service that we could sell to China, the Middle East and Africa. How can the NHS make money for Britain? Based on Mark Britnell's (KPMG global director healthcare practice) opinion piece in The Times, Nov 15, 2011

Unfortunately, the situation is:

- £110B spend on NHS
- Burden on economy
- National debt & tighter budgets
- Heavily centralized bureaucracy
- Lack of willingness to embrace change
- Lack of an entrepreneurial culture
- Funding constraints

The contradictions (having both useful and harmful effects) in this situation are: NHS organization Funding constraints

Key focus: How can we create new value?

Potential levers include:

- Developing the NHS
- Thinking differently
- Cutting edge services innovation
- Motivating health workers across all roles

Actions that will happen are:

- 1. Sharpening up management
- 2. Meet efficiency target of 4% per annum for next four years
- 3. Greater commercial acumen in procurement
- 4. More sophisticated integrated care for chronic diseases

Potential actions include:

- 5. Exporting healthcare knowledge and services
- 6. Capitalizing on challenges presented by globalization of healthcare

Strengths we can exploit include:

- NHS organization
- Healing sick people
- Equity
- Experience
- Strong UK life sciences industry

NOTE- there is a connection between:

Strong UK life sciences industry and Exporting healthcare knowledge and services Strong UK life sciences industry and Cutting edge services innovation

Areas we need to strengthen are:

Efficiency

Managing chronic conditions

Ideas to reduce the burden on the economy include:

- Q1. Capitalizing on challenges presented by globalization of healthcare
- Q2. Exporting healthcare knowledge and services
- Q3. Advise, design, build and operate hospitals in Asia, Africa and the Middle East
- Q4. Export primary care systems to help design and run services to poor, geographically dispersed communities
- Q5. Extend modern healthcare education and training programs to developing nations
- Q6. Export expertise in health data systems and management as well telehealth and medical devices
- Q7. Compete in the rapidly growing \$80B market in medical tourism, for example, opening hospitals in the Middle East
- Q8. Combine the resources of UCL and UCL Hospitals to develop new clinical, education and research services globally, including joint ventures

Catalysts in this situation are:

- A. Thinking differently produces Capitalizing on challenges presented by globalization of healthcare
- B. Cutting edge services innovation produces Capitalizing on challenges presented by globalization of healthcare

Recommended next step

Use 6 hats thinking on the potential ideas:

- 1. Exporting healthcare knowledge and services
- 2. Advise, design, build and operate hospitals in Asia, Africa and the Middle East
- 3. Export primary care systems to help design and run services to poor, geographically dispersed communities
- 4. Extend modern healthcare education and training programs to developing nations
- 5. Export expertise in health data systems and management as well telehealth and medical devices
- 6. Compete in the rapidly growing \$80B market in medical tourism, for example, opening hospitals in the Middle East
- 7. Combine the resources of UCL and UCL Hospitals to develop new clinical, education and research services globally, including joint ventures
- 8. Capitalizing on challenges presented by globalization of healthcare

For example, black hat:

- Will Exporting healthcare knowledge and services work?
- Why can't we do Exporting healthcare knowledge and services now? What should we in preparation?
- What is wrong with Exporting healthcare knowledge and services? What might cause Exporting healthcare knowledge and services to go wrong?
- What are the risks around Exporting healthcare knowledge and services?
- How will Exporting healthcare knowledge and services impact on other activities?

Who will prevent, stop or derail Exporting healthcare knowledge and services?

Also consider:

- 1. Find a way to obtain the benefit of Healing sick people without the need for NHS organization
- 2. Find a way to obtain the benefit of Developing the NHS without the need for NHS organization
- 3. Find a way to obtain the benefit of Equity without the need for NHS organization
- 4. Find a way to obtain the benefit of Efficiency without the need for NHS organization
- 5. Find a way to obtain the benefit of Experience without the need for NHS organization
- 6. Find an alternative to NHS organization that does not produce £110B spend on NHS but still produces Healing sick people
- 7. Find an alternative to NHS organization that does not produce £110B spend on NHS but still produces Developing the NHS
- 8. Find an alternative to NHS organization that does not produce £110B spend on NHS but still produces Equity
- 9. Find an alternative to NHS organization that does not produce £110B spend on NHS but still produces Efficiency
- 10. Find an alternative to NHS organization that does not produce £110B spend on NHS but still produces Experience
- 11. Find an alternative to Healing sick people so that NHS organization is no longer needed
- 12. Find an alternative to Developing the NHS so that NHS organization is no longer needed
- 13. Find an alternative to Equity so that NHS organization is no longer needed
- 14. Find an alternative to Efficiency so that NHS organization is no longer needed
- 15. Find an alternative to Experience so that NHS organization is no longer needed
- 16. Find a way to reduce or eliminate £110B spend on NHS if there is no alternative to NHS organization
- 17. Find a way to reduce the ability of NHS organization to produce £110B spend on NHS

18. Find ways to cope with £110B spend on NHS if all else fails

And:

- 19. How can you reduce or prevent the NHS organization from producing the £110B spend on NHS.
- 20. How can you reduce or prevent the £110B spend on NHS from producing the Burden on economy.
- 21. How can you reduce or prevent the National debt & tighter budgets from producing the Funding constraints.
- 22. How can you reduce or prevent the Heavily centralized bureaucracy from producing the Lack of willingness to embrace change.
- 23. Put measures in place to deal with the £110B spend on NHS.
- 24. Put measures in place to deal with the Burden on economy.
- 25. Put measures in place to deal with the Funding constraints.
- 26. Put measures in place to deal with the Lack of willingness to embrace change.
- 27. Isolate the part of the NHS organization that is producing the £110B spend on NHS and remove it.
- 28. Isolate the part of the £110B spend on NHS that is producing the Burden on economy and remove it.
- 29. Isolate the part of the National debt & tighter budgets that is producing the Funding constraints and remove it.
- 30. Isolate the part of the Heavily centralized bureaucracy that is producing the Lack of willingness to embrace change and remove it.
- 31. How else could the NHS organization be accomplished that would not result in the £110B spend on NHS?
- 32. What else could give the benefits of the NHS organization that would not result in the £110B spend on NHS?

Background transformation and improvements must continue:

- 33. Find away to reduce or prevent the Funding constraints from decreasing the Developing the NHS
- 34. Find away to reduce or prevent the Heavily centralized bureaucracy from decreasing the Cutting edge services innovation
- 35. Find away to reduce or prevent the Lack of willingness to embrace change from decreasing the Thinking differently
- 36. Find away to reduce or prevent the Lack of an entrepreneurial culture from decreasing the Cutting edge services innovation

And also:

- 37. Find ways to increase the effectiveness of the Exporting healthcare knowledge and services in decreasing the Burden on economy
- 38. Find ways to increase the effectiveness of the Sharpening up management in decreasing the Heavily centralized bureaucracy
- 39. Find ways to increase the effectiveness of the Meet efficiency target of 4% per annum for next four years in decreasing the Funding constraints
- 40. Find ways to increase the effectiveness of the Greater commercial acumen in procurement in decreasing the Funding constraints
- 41. Find ways to increase the effectiveness of the Sharpening up management in decreasing the Lack of an entrepreneurial culture
- 42. Find ways to increase the effectiveness of the Motivating health workers across all roles in decreasing the Lack of willingness to embrace change
- 43. Find ways to increase the effectiveness of the Healing sick people in increasing the Managing chronic conditions
- 44. Find ways to increase the effectiveness of the NHS organization in increasing the Efficiency
- 45. Find ways to increase the effectiveness of the More sophisticated integrated care for chronic diseases in increasing the Managing chronic conditions

Appendix B - The Rules Used

The rules below generated the report in Appendix A. The rules are written in a simple 'macro' language called MyCreativity. Users of Southbeach software build up libraries of 'creativity' they find useful and apply it to models they develop in their work. This approach can dramatically increase their productivity as consultants and engineers.

```
Report on: ["{model.name}"]
We have a world-class service that we could sell to China, the Middle East and Africa. How can the NHS
make money for Britain? Based on Mark Britnell's (KPMG global director healthcare practice) opinion piece in
The Times, Nov 15, 2011
Unfortunately, the situation is:
[harmful : dashed]
The contradictions (having both useful and harmful effects) in this situation are:
[useful(&a=*,&b=*) harmful(&a,&c=*) "{&a}"]
Key focus: {issue}
Potential levers include:
[useful+agent+potential: dashed]
Actions that will happen are:
[useful(action+!potential,) "{from}" : numeric]
Potential actions include:
[useful(action+potential,) "\{from\}" : cont]
Strengths we can exploit include:
[useful+agent+sufficient : dashed]
NOTE- there is a connection between:
[related(,) "{from} and {to}" - dashed]
Areas we need to strengthen are:
[insufficient+useful]
Ideas to reduce the burden on the economy include:
[produces(, action+potential) "{to}" : questions]
Catalysts in this situation are:
[produces(agent, action) "{this}": alpha]
Recommended next step
Use 6 hats thinking on the potential ideas:
[action+potential: numeric]
For example, black hat:
[@black "Will {this} work?" : dashed]
[@black "Why can't we do {this} now? What should we in preparation?" : dashed]
[@black"What is wrong with {this}? What might cause {this} to go wrong?": dashed]
[@black "What are the risks around {this}?": dashed]
[@black "How will {this} impact on other activities?": dashed]
[@black "Who will prevent, stop or derail {this}?"]
Also consider:
[increases(&a=*, &b=useful) increases(&a, &c=harmful) "Find a way to obtain the benefit of {&b} without the
```

need for {&a}" : numeric]

[increases(&a=*, &b=useful) increases(&a, &c=harmful) "Find an alternative to {&a} that does not produce {&c} but still produces {&b}": cont]

[increases(&a=*, &b=useful) increases(&a, &c=harmful) "Find an alternative to {&b} so that {&a} is no longer needed" : cont]

[increases(&a=*, &b=useful) increases(&a, &c=harmful) "Find a way to reduce or eliminate {&c} if there is no alternative to {&a}" : cont]

[increases(&a=*, &b=useful) increases(&a, &c=harmful) "Find a way to reduce the ability of {&a} to produce {&c}": cont]

[increases(&a=*, &b=useful) increases(&a, &c=harmful) "Find ways to cope with {&c} if all else fails": cont]

And:

[increases(*,harmful) "How can you reduce or prevent the {source} from producing the {destination}." : cont] [increases(*,harmful) "Put measures in place to deal with the {destination}.": cont]

[increases(*,harmful) "Isolate the part of the {source} that is producing the {destination} and remove it.": cont] [increases(useful,harmful) "How else could the {source} be accomplished that would not result in the {destination}?": cont]

[increases(useful,harmful) "What else could give the benefits of the {source} that would not result in the {destination}?": cont]

Background transformation and improvements must continue:

[decreases(, useful) "Find away to reduce or prevent the {from} from decreasing the {to}": cont]

And also:

[decreases(, harmful) "Find ways to increase the effectiveness of the {from} in decreasing the {to}": cont] [increases(,useful+insufficient) "Find ways to increase the effectiveness of the {from} in increasing the {to}": cont]