Levels theory is a reflection of the holonic structure of reality and consciousness.

It provides insight into different levels of strategy and the organizational demands of strategic change

This chapter has three sections

Section one

Levels theory reflects the holonic[1] ordering of the real world and of the abstract conceptual world of humans. This holonic pattern can be observed in the historic developmental of strategic thinking. Furthermore the rules of holons seem applicable to strategy.

Section two

Functional evolution/holonic evolution can be viewed through a levels perspective. Using the '7 S model' exposes the organizational changes required as one moves through levels. There are considerable gains to be achieved through levels shifting.

Section three

The need for personal self awareness and levels congruency makes shifting an organization extremely difficult especially when shifting to "new territory". The difficulty is highlighted by reviewing the implications inherent in the before and after structures of just one function let alone two or three.

[1] Note: the idea of holons was initiated by A. Koestler then developed by K. Wilber

Section one

Levels theory reflects the holonic ordering of the real world and of the abstract conceptual world of humans. This holonic pattern can be observed in the historic development of strategic thinking. Furthermore the rules of holons seem applicable to strategy.

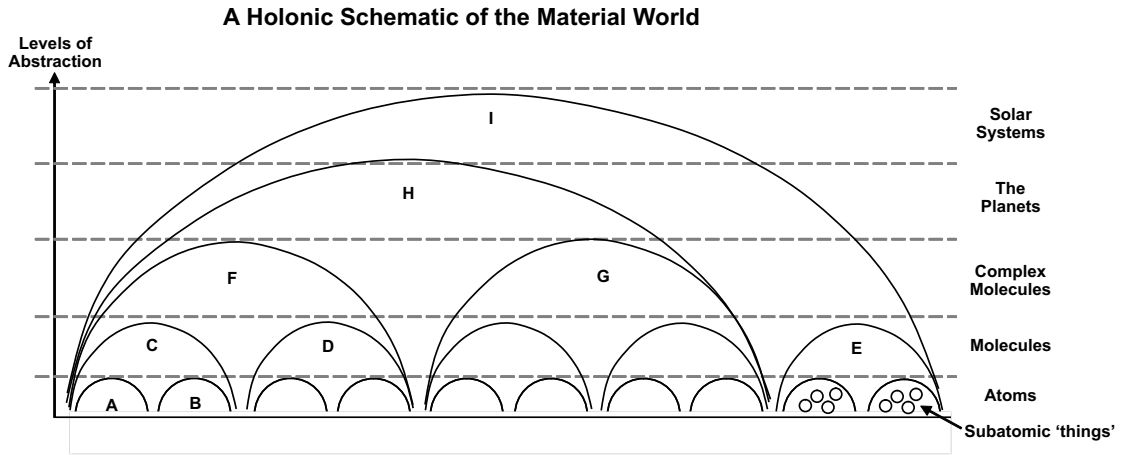
There seems to be a consistent holonic patterning to the ordering of the cosmos.

Both in the real world of things and in the conceptual world of humans there is an upward evolving hierarchy of differentiation and integration of differences, each level of integration providing the next level of difference. This results in higher and higher levels of complexity.

In the real, **non living, physical world** we move from sub atomic particles to atoms to molecules to complex molecules to compounds of complex molecules which end up by comprising the stuff of planets then solar systems, galaxies and finally the cosmos itself. (Exhibit 1)

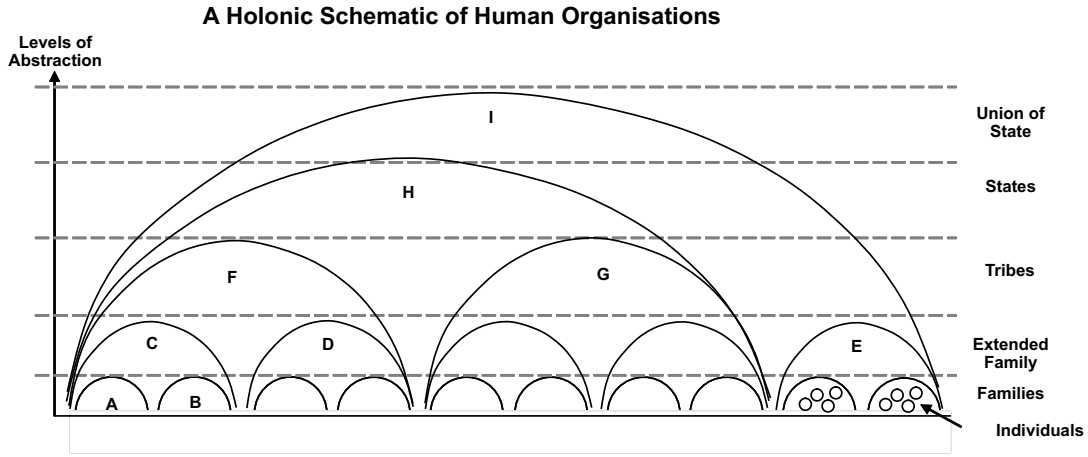
At the complex molecule stage we can also observe a branching off into **organic molecules** that combine to form cells then organs then living creatures and ultimately conscious humans.

Exhibit 1:



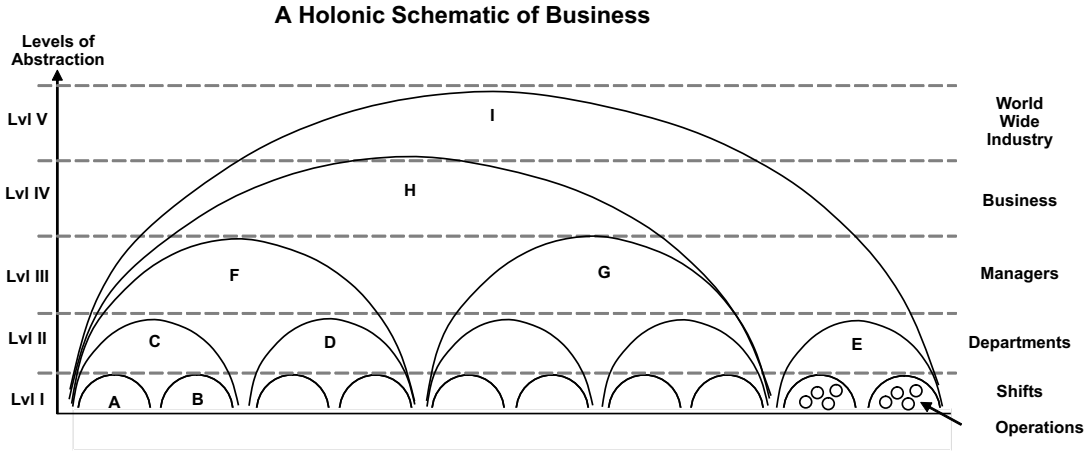
Humans then extend this patterning of differentiation and integration into abstractions like the nuclear family extended family, tribes, nation states, unions of states and ultimately the globe/united nations (Exhibit 2).

Exhibit 2:



In the world of business we do the same thing (Exhibit 3).

Exhibit 3:



Fred on the night shift is part of, say, the assembly department which is in turn integrated into the production function which is integrated with additional functions like sales, marketing, finance etc which together go to make up a business .The business is differentiated from competitors but is integrated into a domestic industry structure which in turn is integrated into a world wide industry structure.

Development of the holon idea

What we see in each Exhibit is ongoing **differentiation and integration**, furthermore:-

1. (A) is different from (B) but integrated by (C) which is again has a different emergent quality than either (A) or (B);

2. (C) can't exist without (A) or (B) but without (C) both (A) and (B) are some how diminished;

3. (A), (B), and (C) are simultaneously in cooperation and competition with each other;

4. if (C) becomes an apex holon it invites further integration this time with (D) to form emergent (F);

5. each level contains and honours all lower levels;

6. mechanics/narrow purpose exist at the lower level, inclusive purpose at the higher;

7. events at any level impact all other levels vertically and horizontally; and

8. truth or more specifically "felt truth" is different at each level.

Applying these ideas to the domain of business first relating business to one through seven above and then developing some additional insights

As a starting point Corporations are clearly organized in an hierarchical holonic pattern with each level of management addressing more complexity by being both the integrator of lower holons and the responsible, purposeful owner of a holon, zone of differentiation:-

1. Taking (A) as production and (B) as marketing and (C) as the profit and loss business unit, the first rule applies. Production is different than marketing which both together create the emergent business which is different than either production or marketing;
2. The business can not exist without production and marketing but without the cross integration of the business manager the GM both are diminished;
3. Production and marketing are in cooperation with each other to create a profitable business but also in competition with each other for resources approval and maybe the chance to become the new GM;
4. If this was a new business with two entrepreneurs one a marketing specialist and the other a production specialist maximization of their specialties would require a cross over GM;
5. In our mini business the GM cannot sensibly ignore, overrule either operation or marketing they must both be honored as critical components of success;
6. The role of the GM is to create and communicate common purpose across Operations and Marketing. Each function will have both functional purpose and higher business purpose. The business purpose will take priority. Real world execution always takes place at lower levels; and

7. Lack of delivery at any level in any function marketing or production will dilute the realization of purpose at all other levels.

Some additional insights

- The cross over manager at each higher level is required to cross integrate more and more conflicts of purpose
- The currency used to integrate the conflict between holons is time. The higher up the holonic structure you go the more time it takes to reach an outcome that honors both the purpose of the apex holon and the purpose of lower holons
- Contemporary business practices like JIT, efficient consumer response, kanban and business process engineering all try to overcome holonic conflict/siloing by uniting holons. Remove inventory and you meld two holons into one.
- At each discrete level a manager views the source of profitability/their purpose, quite differently and therefore their attention is different. A manager's conscious attention and intention reflects the level at which they are operating

In summary there is considerable overlap between the idea of levels theory and the idea of holons.

The evolutionary path of strategy

Strategic attention changes as you move up levels. Higher levels of strategy (the answer to the question "what drives sustainable profitability?") demands the increasing ability to integrate more and more competing functions across expanding time and space.

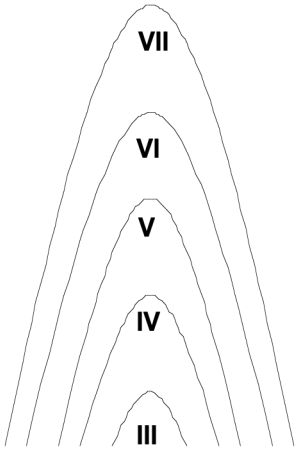
Five view points as to what drives strategy that can be roughly plotted across the last hundred years (Exhibit 4)

Exhibit 4:

Focus of strategy changes as you move up levels, each higher lev el respecting and adding to those below, success at one level creat ing issues one level up

A Levels View of Strategy

VII	-	World wide industry structure of a social/economic entity	2000
VI	-	Industry structure (Porter)	1980
V	-	Relative competitive position (BCG)	1970
IV	-	Profitability focus (early McKinsey)	1900
III	-	Functional execution	1850 +



Models, questions, analytical approach, objectives, time frames, consulting fees all reflect level.

Level three - functional execution (usually operations); success was seen to be largely driven by the single function/holon of production “they can have any color as long as it is black”

Level four - **business unit profit**; profitability was recognized as the result of the interplay of new product development, production, sales and finance; a fully fledged business a Holon that could sustain itself in time

Level five - relative competitive position; research by B.C.G. showed that profitability was not only a function of competence within a single business holon but more often than not a function of

relative competitive position of one business in relationship to all other businesses in that industry holon

Level six - industry structure; Michael Porter then demonstrated that profitability was not only a derivative of internal business capability and relative competitive position but also domestic industry structure. Some industries were inherently more or less, profitable than others. Industry profitability being a function of the relative power position of not only competitors but also suppliers, customers and potential competitors

Level seven - world wide industry structure; the domestic industry structure model was forced to move up a level by international trade and the realisation that super profitability decay curves were accelerating. It became apparent that profitability in industries with trade products was driven not by domestic dynamics but by evolving world wide industry and social structure

Insights into applying holonic/levels theory to strategy

The strategic capability of a business is limited by the capability of its most senior manager:

If a CEO is production focused with no ability to see the value of say marketing (assuming that marketing has some value in this case) then the business and all participants will be constrained to level four thinking

Strategy is a horizon condition:

The process of differentiation leading to conflict across apex holons and then integration to form the next apex Holon is never ending. The emergence of global companies, air travel, CNN, immigration, and the internet (i.e. increased holonic communication) will ultimately invite, demand economic, environmental, philosophical and political global solutions

There are different 'felt truths' at each level, they are hard to change

Felt truths the way the world is perceived to work, how I prosper and survive are different by level and skills accumulated. These are the current personal apex holons of the manager. The level four marketing manager will know a good deal about marketing but perhaps little about production and is yet unable to cross integrate the needs of both. Marketing knowledge has been the basis of success and almost certainly his felt truths.

Felt truths, abstractions held with **survival vigor** are hard to change especially in a threatening environment.

The dominant, most profitable player in a market is often operating at one level higher than its competitors in key competitive functions/holons

In the 1970's the American auto industry saw quality as a level four function "statistical quality control" a cost benefit trade off. Their competitors in Japan saw it as a strategic function and created TQM at level five. The rest is history, as Ford and GM have not recovered

Business improvement is of two classes

Improvement can either be (1) more effective at your current level or (2) shift a level. Shifting level is hard but has by far the most impact.

Section 2

Functional evolution/holonic evolution can be viewed through a levels perspective. Using the '7 S model' exposes the organizational changes required as one moves through levels. There are considerable gains to be achieved through levels shifting.

Functional evolution seen through a levels perspective (Exhibit 5)

At a high level of abstraction one can see how stages of functional development reflect levels/holons.

Taking the quality function as an example: When I worked on a lathe in a manufacturing plant in the UK in the sixties, quality control was performed by **end of line inspection**.

Every four hours an inspector, level two, would come around and randomly measure my output for out of spec conditions. For every faulty one found my piecework payment was reduced by ten units.

Exhibit 5 - Stages of Individual functional/holonic development can be roughly related to levels of capability

Level at which the function or activity is managed

Level \ Activities	Strategy	Marketing	Quality control	Inventory control	Purchasing	Maintenance	Financial metrics
VI Chief Executive Officer	▪ Value proposition ▪ 10 year +	▪ Marketing chartering driving whole company	▪ Value balanced quality	▪ Efficient customer response (ECR)	▪ Virtual vertical integration	▪ Not yet needed	▪ Balanced scorecard ($ and humans)
V Managing Director	▪ Industry structure ▪ 5-10 year horizon	▪ Value equivalency analysis	▪ Total quality management	▪ JIT inventory	▪ Symbiotic partnership integration	▪ Zero failure maintenance	▪ Shareholder value analysis
IV General Manager	▪ Relative competition position ▪ 2-5 year horizon	▪ Consumer segmentation	▪ Statistical quality control	▪ Live statistical inventory management	▪ Strategic segregation	▪ Reliability-based maintenance	▪ Return on equity ▪ Return on assets
III Department Manager	▪ Internal efficiency focus ▪ 1-2 year horizon	▪ Mass marketing	▪ Quality assurance	▪ Economic order quantity	▪ Adversarial	▪ Preventative maintenance	▪ Profit and loss
II Supervisor	▪ Day-to-day survival ▪ 1 year horizon	▪ Local sales	▪ End-of-line inspection	▪ Eyeball check	▪ Yellow pages	▪ Breakdown maintenance	▪ Cashflow

On moving to the States in 1972 I started work as a department manager in a plant that manufactured telephone cable. The approach here had developed to **quality assurance through operator inspection**.

At each station each operator was responsible for making “go no go” quality decisions and adjusting their machines accordingly. At the end of the process the finished cables underwent final quality assurance by the QA department managed by a level three manager.

By 1979 when I left cable making we had evolved to statistical quality control. QA had been centralized under a level four head office VP of product quality. They had a full complement of staff right down to level two statisticians located in the plant. At plant level we still did our “go no go” inspections but the results were statistically collated and monitored at HQ.

This provided the basis to both change the specs and to process innovate to develop higher levels of quality. The objective function of quality was still couched in terms of cost benefit. Exceptional quality was not seen as a value in its own right.

Later when I lived in Japan I was exposed to the concept of **total quality management**. Quality was the focus of level five management - even level six. In a smelter that I studied, improved quality was the ongoing objective of every employee.

Quality was viewed as a strategic variable and valued not only as a method of reducing cost and improving quality for customers but also in its own right as giving meaning and an opportunity for creative activity for each employee. Over a period of fifteen years I had witnessed the evolution of the quality function through four levels.

On reflection and learning about levels theory I realized that the same process of evolution can be seen in all functions. It is the basis of progress.

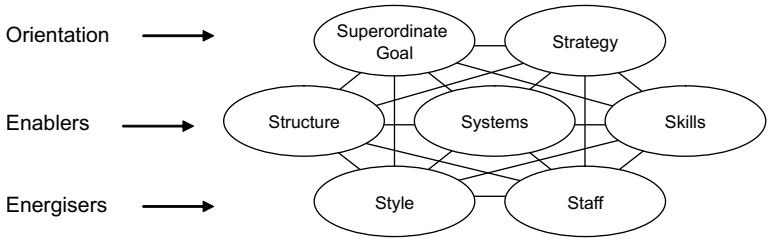
I further recognized intuitively that as the function evolved it demanded a different organizational design that led me to using the McKinsey 7S model (Exhibit 6) as an organizational template to describe the changes as one moves up levels.

Exhibit 6 - The 7 S model to be used as a descriptive organizational template

The Seven-S descriptive model of organisation

The Seven-S model was developed by McKinsey's Bob Waterman and Tom Peters (co-authors of *In Search of Excellence*), as a way of describing organisations. It is descriptive rather than prescriptive.

Seven-S Model



All dimensions are interdependent, e.g. change strategy, and one must almost certainly change structure, skills, staff and style

Superordinate Goal:	The long-term human and economic leadership vision of the organisation.
Strategy:	The market segmentation, value proposition, and goals of the organisation and how these goals can be prioritised and broken down into separate accountabilities. A new strategy usually requires a levels shift.
Structure:	The organisational chart that shows the division and the co-ordination of work in terms of function and level, and in doing so defines accountability, authority and potential teams.
Systems/Processes:	The formal and informal performance systems and operational processes of the organisation.
Skills:	Organisational skills to support level of capability, skill and intellectual capacity being quite different issues.
Staff:	Support specialists, such as IT, HR and technical, who support accountable line managers.
Style:	'The way we do things around here.' Who has authority? Who is accountable? How are rewards and sanctions manifested? Are we individually or team oriented or both?

The '7 S model' applied to the evolution of the quality function

Taking the levels/holon model together with the '7 S model' one can develop a picture of how organizational design shifts as you move through levels.

Exhibit 7 is a high level of abstraction example of the evolution of the quality function.

This process can be taken down to a low level of granularity. For a client who was concerned about their relative competitive capability of the marketing and sales functions we broke the sales function into twenty three different process and the marketing function into eighteen and documented the processes at level three, four and five (three four inch binders).

The client then rated themselves and their competitors against this matrix. It more than explained why they were losing share and what to do about it.

Exhibit 7 – Levels of Quality

From what ⟶ *To what*

Descriptor	Level II End of the line inspection and customer return	Level III In process inspection	Level IV Statistical quality control (SQC)	Level V Total quality management (TQM)
Strategy	▪ Reduction of returns	▪ Reduction of production costs	▪ Reduction of complete process costs ▪ Incorporates pre and post production	▪ Seek competitive advantage through quality and its through-effect on other processes
Structure ▪ Leader of function ▪ Lowest paid in function	▪ Production supervisor $70k p.a. ▪ Operators $35k p.a.	▪ Quality control manager $100k p.a. ▪ Inspectors $35k p.a.	▪ General Manager (Quality) $175k+ p.a. ▪ Quality assurance officer $70k p.a.	▪ Operations director (QA responsibility) $250k p.a. ▪ Quality management officer $70k p.a.
Skills required	▪ Production/product expertise ▪ Go, no go measurement	▪ Competent statistical and analysis skills ▪ Beginnings of specialized quality control technical skills ▪ Writing of design specifications ▪ Troubleshooting	▪ Broad business comprehension ▪ Competent quality assurance and control skills ▪ Strong numeric and diagnostic skills	▪ High level, broad based competencies in customer value offering ▪ Forefront of continuous improvement techniques ▪ Product/production skills less important
Systems	▪ End of line inspection ▪ Customer lives with lots of defects ▪ Repair a large function pre and post sales ▪ End of line, go no go specs on key utilities	▪ In process and end of line go, no go inspection ▪ Repair very much a part of operations ▪ Scrap rates measured in percentage points ▪ Hardly ever see a customer ▪ Industry discussion groups ▪ Standards set but a low level	▪ The quality function still largely separate from other functions ▪ Massive measuring and monitoring systems in place, trend analysis, talk to customers ▪ Quality circle processes starting ▪ Some failure accepted and repair function still in place ▪ National associations co-ordinating industry standards	▪ Cross-functional and thorough level integration of quality function ▪ Individuals within teams working to 2 sigma ▪ Integration of customer into the process both for design and feedback ▪ Failure the absolute exception. No scrap, no repair ▪ International Standards Organisation (ISO) accrediting and governing international industry standards
Outcomes 'the prize'	▪ **High failure rates but customer often wears it** ▪ **Focus on repair**	▪ **Failure rates in percentage terms** ▪ **QA a cost to be lowered** ▪ **QA as good as competitors**	▪ **Failure rates measured in parts of a per cent** ▪ **SQC used as a cost/profit trade-off**	▪ **Failure rates in units per million** ▪ **Increased speed to market locally and globally** ▪ **Quality a strategic tool**

To achieve what ⟰

Considerable gains are achieved through levels shifting

Over my career I have been able to witness the impact of levels shifting. Exhibit 8 highlights some of the real gains that I have seen either as a consultant or as a line manager. This has more than convinced me as to the power of levels shifting and also the difficulty achieving it.

Exhibit 8 – Gains actually achieved by levels shifting

Function	Measure	Gain due to level shift *from* → *to*
Quality	▪ % scrap rate ▪ Defect rates	▪ 12-15% → 1.8% ▪ 1-2% → 1:1,000,000
Purchasing	▪ Cost of purchase	▪ Cost reduction of 10-12%
Sales	▪ Sales per mobile mortgage manager ▪ Value per mortgage	▪ 2 per week → 5 per week ▪ $80,000 → $130,000
Maintenance	▪ Availability of multi-system continuous plant	▪ 64% → 85%
Admin overhead	▪ Total cost of administration	▪ Reduced by 35-40%
Marketing	▪ Shares ▪ Time to market	▪ Three-year record of 7% value share gains based on social insight ▪ Time to market weeks or months
Operations productivity	▪ Labour and machine productivity	▪ 100-200% improvement

Section 3

The need for personal self awareness and levels congruency makes shifting an organization extremely difficult. The difficulty is highlighted by reviewing the implications inherent in the before and after structures of just one function let alone two or three.

The need for personal self awareness and for levels congruency makes shifting a whole organization extremely difficult

Without belaboring the point, the capacity of a manager to lift themselves up one level is critical. Shifting a level requires a new set of felt truths and skills. This is why apex managers are often replaced.

Continuing with the quality example; if a company has determined to lift quality one level then on the face of it one focuses resources on the quality function. However the reality is that the quality function can't be lifted without lifting the level of all functions that contribute significantly to quality. This will require a congruent lifting of product design, procurement, process technology and even maintenance. If these functions are not lifted then they will draw down the quality function to their own level and the effort into improving quality will wither as soon as the quality change team disbands.

Exhibit 9 – Congruency requirements

A levels shift in one function demands a similar level shift in all other related functions

Level at which the function or activity is managed

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Congruence

Congruence

This is another example of holistic theory in practice and leads to two general rules.

First; that an organization's overall level is determined by the lowest level of any of its key functions for success.

Second, less obviously, that a levels shift that has not been achieved elsewhere, that is breaking new ground needs initially to be lead at one level above the desired final level.

As a young plant superintendent I was part of a plant start up. The objectives for this plant were to operate non-union, double productivity, halve the scrap rate, and significantly improve on all quality parameters. Our exiting union plants were level three operations. This was to be (in retrospect) level four.

Without the benefit of levels theory but with lots of intuition senior management appointed a level five plant manager who then hired a team of fours to report to him. Within eighteen months each objective I had been exceeded and within thirty months virtually all the senior management team at the plant had moved on through promotion.

At the thirty month mark the plant had stabilized at level four and there was not enough level four work to keep the team engaged.

Structurally this greenfield site had moved from a level five organization to a level four. This is much easier to achieve than lifting an existing organization.

The difficulty of achieving a levels shift is highlighted by comparing the before and after structures of just one function

Exhibit 10 illustrates the structural aspects of a levels shift in just one function ignoring congruent functions and the other six S 's. The benefits of the shift will be significant but the difficulty of getting there is real. Each level throws up its own issues:

At level four the issue: is can an existing manager fill this role? or do you have to go outside? With all the pros and cons that that entails especially in relationship to the attitude of the current level three.

At level three; where do I suddenly get four level threes? And will this include my existing three? Often one or two threes are waiting underutilized in the wings but it will be rare to be able to fill all these roles internally.

At level two the same sort of problems but larger numbers. This is more easily addressed because within the level one roles there are often significant numbers of people capable of doing higher level work.

At level one: the level one roles have largely been eliminated so there is a significant issue with redundancies for those that have not made the shift. Personnel cost reduction at level one is the source of cost reduction and must be realized.

Net net it is a lot easier to greenfield a change than brown field.

Exhibit 10 – Level shift difficulties

A levels shift implies a major lift in capability with difficult personnel issues. This is a prime "technical" reason that change is so difficult.

	Typical Level III Function	Typical Level IV Function	Issues
IV		GENERAL MANAGER x 1	▪ Can old III become IV?
III	MANAGER x 1	MANAGERS x 4	▪ Where do I get four IIIs?
II	SUPERS x 6	ASSOCIATES x 20	▪ Where do I get 20 IIs (usually okay 1/3 1/3 1/3 rule)?
I	OPERATORS x 36		▪ Need to lay off a number of people
	Total = 43	Total = 25	Net reduction of 18 people = 41%

Post script

On reading this chapter some friends said to me ‘This holon framework is interesting but you have not explained how to ‘**DO STRATEGY**’.

At first I was a bit dumbfounded because I thought I had explained it adequately. I thought I had provided the tools and the reader should be able to build their own kitchen table

On reflection I decided the “How do you do strategy question” was a reasonable question but unfair in that readers are building all kinds of kitchen furniture out of all kinds of materials. There is too much variety to address - too many permutations and combinations of holonic interactions to provide a standard approach.

That said what I can share is what I typically do myself - a four step approach

First

I always go the Porter Five forces model and populate it in holonic form. It can have as many as thirty or forty holons of potential interest.

- Several competitors with several key functions for success
- Several suppliers
- Several market segments

Second

I gather data or interview for opinions around the client, competitors and the industry

to determine WHERE IS THE POWER?? WHO IS GETTING THE SURPLUS??

- Suppliers?
- Competitors?
- Consumers?

This must be reviewed for each segment

Third
From this data rich position decide whether the best deliverable approach is an improvement strategy or does it warrant a levels shift strategy? How to shift the power balance in one or more holons in favour of the client? This may mean giving up more power to the consumer and is always a climbing up of the holonic structure.

Fourth
Get creative, climb the holonic ladder wherever appropriate!!!