

Copyright © 1998, 2015, by Peter W.T. Bogacki

The right of Peter W.T. Bogacki to be identified as the author of this work has been asserted by him in accordance with the Copyright, Designs and Patents Act 1988.

Reproduction and distribution of the complete unaltered material for personal and purely educational use permitted.

Reproduction, distribution, use, of any part of the material not permitted.

Reproduction of material for commercial use not permitted.

CONTENTS

Kybernetes letter of 9 January 1998

Constituent (7): The End Result

rec'd 15/1/98



The International Journal of Systems & Cybernetics

Professor Brian H Rudall
Plas Craig yr Halen, Menai Bridge, Isle of Anglesey LL59 5HD, UK
Tel: +44 (0)1248 712636

Peter W.T. Bogacki,
3 Betson Street
Fife, KY7 6AA

9th January 1998

Dear Mr Bogacki

Re: Publication of 'The End Result'

Thank you for your letters concerning the publication of your work, in particular your notes of the 16th December last. Please do not apologise for disagreeing with the publishers' 'conditions of publication' for articles/papers, authors have every right to, and may choose how their work is to be reproduced. As I have said before, we have had no objectors in our 25 years of production because the publishers MCB are very liberal in their interpretation of 'copyright' and no contributor has, to my knowledge, been refused the right to republish Cybernetics contributions.

I have spoken to some of the distinguished members of our Editorial Board about your problem and as a result it has been agreed that your contribution could be published as a communication, in our special section: 'Communications and Forum', without any of the formalities required of a paper/article.

If you are agreeable, perhaps you could forward your 'definitive' version (3 copies if possible) for publication. If you have a disk of the copy, that, too, would be most helpful, but we can proceed without one. An abstract is also required.

I am sure that our readers will appreciate your work and that it will generate great interest and response.

Many thanks for your seasonal good wishes and I would like to wish you a very happy, prosperous and productive 1998.

Yours sincerely,

Brian Rudall



MCB University Press Limited
60/62 Toller Lane, Bradford, West Yorkshire, England BD8 9BY
Tel: +44 (0)1274 777700 Fax: +44 (0)1274 785200
Internet: <http://www.mcb.co.uk>

Constituent (7): **The End Result**

Figures 1-3 – pp. 197-199; Endnotes – p. 200

Keywords

Communication, language, management, organization, reality, transformation.

Abstract

Developed by Stafford Beer, the VSM (the Viable System Model) reflects and is founded on the premise that what is working in the form of the nervous system of an individual human being already is working as integral whole, and control is spread through the form of this same system. Developed by Peter W.T. Bogacki, the essential VSM is founded on the premise that a mind is responsible for creating, containing and regulating the experience in being.

In the essential VSM, essential parts are mutually interdependent and every essential part already is working. This is partly matched by the structure of the English language which is partly founded on: the premise of causality (i.e. Y is caused by X). Through the process of producing and sharing two books (**BEING IN TWO MINDS ABOUT IT**, 1995; **THIS IS IT: An Holistic Business Approach**, 1998), essential language was learned that matches the essential VSM in operation and works.

The Essential Content

The natural manager of the self, of the organization, is an essential mind, the essential VSM. In reality in the organization,

- “Every Good Regulator of a System must be a Model of that System”.
- two types of stuff already are being modelled and regulated:-
 - 1) the material stuff, i.e. the stuff made of matter.
 - 2) the non-material stuff, i.e. the stuff not made of matter.
- the material stuff already is being modelled and regulated by the non-material stuff which already is being modelled and regulated by the non-material stuff.
- reality; the self; the organization; the material form in the essential form: already is, being reduced to,
 - * the essential form
 - * the essential VSM
 - * essence of organization
 - * essence of real management communication
 - * essence

- * essence of essence recurring
- * an essential idea recurring
- * the conceptual model
- * an essential mind
- * the observer
- * the essential self seeing what is the essential self
- * connection
- * source of the experience
- * the experience in being
- * the 'here and now'

A Process of Complete Transformation

1: RE-CREATING THE EXPERIENCE
2: TRANSFORMING THE EXPERIENCE
3: TRANSFORMING THE TRANSFORMATION

In 1978, the experience of real management communication was transformed, and the process of re-creating, sharing and transforming it using language was begun. In 1997, clarity about an essential connection recurring between language and source of the experience was re-created, and the experience was translated. In the 'here and now', through natural[1] power[2] management, the experience is being transformed, and real management communication is being re-created.

In the 'here and now', by working through re-creating the experience, transforming the experience and transforming the transformation, the experience is being transformed, and real management communication is being re-created. **The end result is a process of complete transformation.**

1: RE-CREATING THE EXPERIENCE

1.1: Management Cybernetics

The word "*cybernetics*" comes from Greek and the literal translation of it is, "*steersmanship*". In 1948, the science of cybernetics was defined by Norbert Wiener and his definition was this, "*the science of communication and control in the animal and the machine*".

Cybernetics is an interdisciplinary science and it has been around for over fifty years. The disciplines used range from biology and the study of the brain, to physics and the study of computers. Over the years, cybernetics evolved into management cybernetics, and this is the observing and modelling of the underlying system of communication and control in an organization that is made up of people.

1.2: A Recursion

In this same organization, a certain set of five functions was found to be working and recurring at all structural levels of real management communication, and this finding was not dependent upon type of: business[3], enterprise[4], company[5].

Essential connections between these same sets of five functions were made explicit by the development of Stafford Beer's VSM and his VSM Diagram (see Figure 1). Three structural levels of real management communication are being represented in the diagram, and each of these same levels is termed, "a recursion". At a recursion, each function in the set of five functions is fulfilled by a subsystem, and these five subsystems make up Beer's systemic set of subsystems. [6] In 1986, Beer's guide to using his model and diagram was published in the book, Diagnosing The System For Organizations.

1.3: The Essential Form

By convention, Beer's Viable System Model Diagram and his VSM are termed "the VSM Diagram" and "the VSM". Here: the VSM Diagram is a solid object and is the material form; the VSM is simply an idea and is the non-material form. [7] Already reduced to essence, the essential VSM is an essential idea recurring and is the essential form. [8] The essential VSM already is:-

- * real management communication in the essential form.
- * clearly, concisely, and well defined through working with language.
- * working in the essential form at a recursion in AN ORGANIZATION.

In an essential idea recurring in THE ORGANIZATION, THE ORGANIZATION is simply THE ONE-PERSON-BUSINESS, and the essential VSM already is an essential connection recurring between,

- * Beer's systemic set of subsystems,
working in the essential form at a recursion in AN ORGANIZATION,
- and
- * Beer's essential system of communication and control,
working in the essential form in THE ONE-PERSON-BUSINESS.

2: TRANSFORMING THE EXPERIENCE

2.1: The Diagram in Figure 2

In an essential idea recurring in THE ORGANIZATION, Beer's essential system of communication and control is the essential form. In 1972, Beer's simplified representation of it in THE ONE-PERSON-BUSINESS was published as the diagram in Figure 2. In an essential idea recurring in THE ORGANIZATION:-

- * what is working in the form of the nervous system of an individual human being already is working as integral whole, and control is spread through the form of this same system. [9]
- * Beer's essential system of communication and control already is working in the essential form along two dimensions which approximate to the horizontal and vertical. [10]
- * the outside world and Beer's essential system of communication and control already are in real management communication in the essential form.

2.2: The Diagram in Figure 3

In *an essential idea recurring* in THE ORGANIZATION, *Beer's systemic set of subsystems* reflects the major functional differences in *Beer's essential system of communication and control*, and is *the essential form*. In 1972, Beer's simplified representation of it in THE ONE-PERSON-BUSINESS was published as the diagram in Figure 3. In *an essential idea recurring* in THE ORGANIZATION:-

- * *Beer's systemic set of subsystems* already is working in *the essential form* along two dimensions which approximate to the horizontal and vertical.
- * *the outside world* and *Beer's systemic set of subsystems* already are in real management communication in *the essential form*.

Beer's systemic set of subsystems is made up of five subsystems termed "*the System 1, the System 2, the System 3, the System 4, the System 5*". *The System 3* has its own subsystem termed "*the System 3**". These same subsystems are mutually interdependent, and each one *fulfils* its particular function. The function of *the System 1* is creation. The functions of *the Systems 2 to 5* facilitate the operating of *the System 1*, and stabilize the conditions being created by working.

2.3: An Essential Connection Recurring

Through working with both these diagrams, *the underlying structure of the constituents of each diagram* already is *the structure of real management communication* in *the essential form*. In *an essential idea recurring* in THE ORGANIZATION,

- * *an essential connection recurring* already is: working in *the essential form*; real management communication in *the essential form*; *the essential VSM*; *the essential form*; *an essential idea recurring*; *essence*.
- * *the experience* already has been re-created in *essence*, and transformed[11] from *the essential form* via *the material form* into *the essential form*.

3: TRANSFORMING THE TRANSFORMATION

3.1: The System 1

Through working with both diagrams, *the System 1* can be *seen* on the horizontal axis and it already is working. Its function is termed "*produce*". To *see* it working, *the material structure of the entire nervous system of an individual human being* is being regarded as a tube formed by *two identical curved plates* – *one plate* for the sensory input, *the other plate* for the motor output. *These two plates* are connected by a tangled network of nerve fibres in between them. The spinal cord is something like this. If a horizontal slice across it is taken at any level, sensory input via nerve fibres can be *seen* already coming in at the back, and motor output via nerve fibres can be *seen* already leaving from the front. Here, these same nerve fibres connect *each plate* to *every part of the material form of an individual human being*.

Here, communication and control already is being re-created and working with autonomy[12] on the horizontal axis at every level. Facilitated by communication and control that already is being re-created and working on the vertical axis, *the System 1* already re-creates, contains, regulates, is:

- * *Beer's essential system of communication and control; Beer's systemic set of subsystems; an essential connection recurring; working in the essential form; real management communication in the essential form; the essential VSM; the essential form; an essential idea recurring; essence; essential single whole; the essential self; the essential self contained model* [13]; *the essential self creator/the essential self container/the essential self regulator/the essential self worker; completion.*
- * *the material form in the essential form; THE ORGANIZATION; THE SELF; reality* [14].

In *an essential idea recurring in reality, the form, material with essential, of an individual human being* already is: working as single whole; acting as single whole; real management communication; acting with *intention*; being re-created by *the System 1*. This is *the overall response* from an individual human being and is *the desired effect* [15].

3.2: **The System 2**

Through working with both diagrams, *the System 2* can be *seen* on the vertical axis and it already is working. Its function is termed “*anti-oscillatory*”. Here, *the System 2* already is working in the form of the sympathetic system. This uses the two chains of ganglions that run parallel to and are connected to the spinal cord along its length. *The System 2* senses and damps every oscillation between every operation of every part of *the System 1*. The effect of the sympathetic system in operation is basically stimulatory. For example, if I’m running for a bus, what is working in the form of my sympathetic system is supervising the interacting of the organs and the flowing of adrenalin.

3.3: **The System 3***

Through working with both diagrams, *the System 3** can be *seen* on the vertical axis and it already is working. Its function is termed “*sporadic audit*”. Here, *the System 3** already is working in the form of the parasympathetic system. This uses cranial nerves which connect most organs in the body to the base brain at the top of the spinal cord. *The System 3** senses and inhibits every activity outside of every function of every part of *the System 1*. The effect of the parasympathetic system in operation is basically inhibitory. So, while I’m running for my bus, what is working in the form of my parasympathetic system is watching for signs of strain and preventing my organs from exceeding their physiological limits.

3.4: **The System 3**

Through working with both diagrams, *the System 3* can be *seen* on the vertical axis and it already is working. Its function is termed “*inside and now*”. Here, *the System 3* already is working in the form of the base brain. This subsystem regulates the stability of the INTERNAL environment of a human organism[16]. *The System 3* does this automatically and in alignment with the messages being received from *the System 4*. It optimizes the allocating of the resources to *the System 1* and continuously sends to *the System 4*, messages about what is being sensed below. While I’m running for my bus, what is working in the form of my base brain “. . . has got its work cut out to hold my INTERNAL environment stable”. [17]

3.5: The System 4

Through working with both diagrams, *the System 4* can be seen on the vertical axis and it already is working. Its function is termed “*outside and future*”. Here, *the System 4* already is working in the form of the mid brain which connects the base brain to the cerebral cortex. *The System 4* contains, regulates, is: what is being sensed with memory; AWARENESS of THE SELF; THE SELF CONTAINED MODEL.

In Figure 2, this subsystem has been drawn regulating the senses of sight, hearing, smell, taste, and this same regulating already is working in the form of the cranial nerves that connect the eyes, ears, nose, mouth, to the mid brain. *The System 4* combines what is being contained in memory with two lots of sensory input:-

- 1) what is being received regarding the EXTERNAL environment of a human organism.
- 2) what is being received regarding the INTERNAL environment of a human organism.

The System 4 sends messages upwards and downwards. It does this automatically and in alignment with the messages being received from *the System 5* which regulates it. As the natural consequence of learning and conditioning, *the System 5* programmes *the System 4* to send certain messages automatically to *the System 3* below. These same messages are habitual and unconscious. *The System 4* senses every message being received from *the System 5* and automatically sends to *the System 3* below those messages intended for it. An example of a *System 4 programme* in effect, is the act of walking without thinking about it.

3.6: The System 5

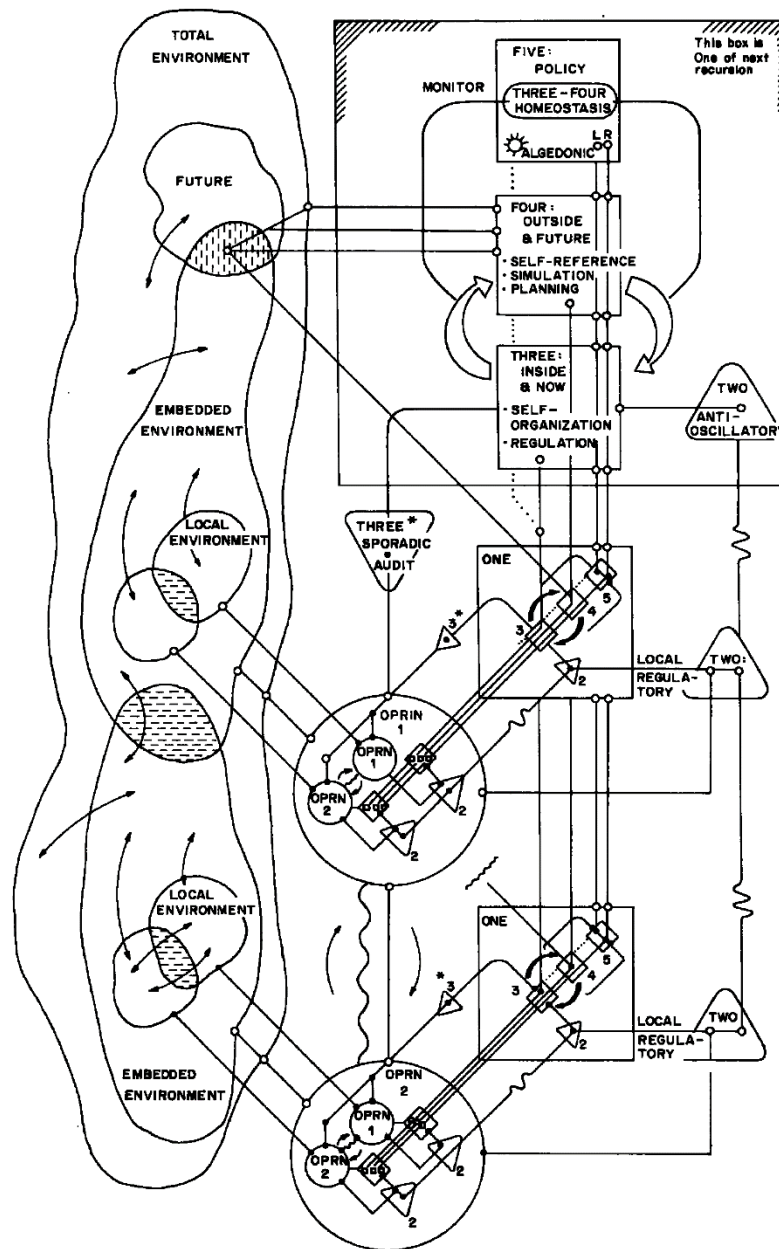
Through working with both diagrams, *the System 5* can be seen on the vertical axis and it already is working. Its function is termed “*policy*”. Here, *the System 5* already is working in the form of the cerebral cortex – that’s the bit inside the skull that looks like a walnut. The sensory and the motor cortex of the brain are being regarded as the ultimate input and output plates. In between these same plates, *the System 5* contains every sensory impulse about what is: desire; thinking with feeling; ethos; value; intention. It receives messages from *the System 4*, and contains, regulates, is: CONSCIOUSNESS of THE SELF; THE CONCEPTUAL MODEL.

In an essential idea recurring in reality, *the System 5* already is:-

- * essence of the System 1; the essential form; the essential VSM; essence of organization; essence of real management communication; essence; essence of essence recurring; the essential conjoining; the rational mind with the emotional mind; an essential mind; THE OBSERVER / THE RE-CREATOR / THE CONTAINER / THE REGULATOR / THE MANAGER; the essential self seeing what is the essential self; connection / fact / truth / existence / being[18]; source of the experience; the valid essential experience; clarity; the experience in being; the ‘here and now’.

In an essential idea recurring in reality, the desired effect already is being re-created, desire already is being satisfied, and the systemic purpose [19] already is being fulfilled. *The System 5* decides what is policy [20], and sends intention with every motor impulse downwards to *the System 4*.

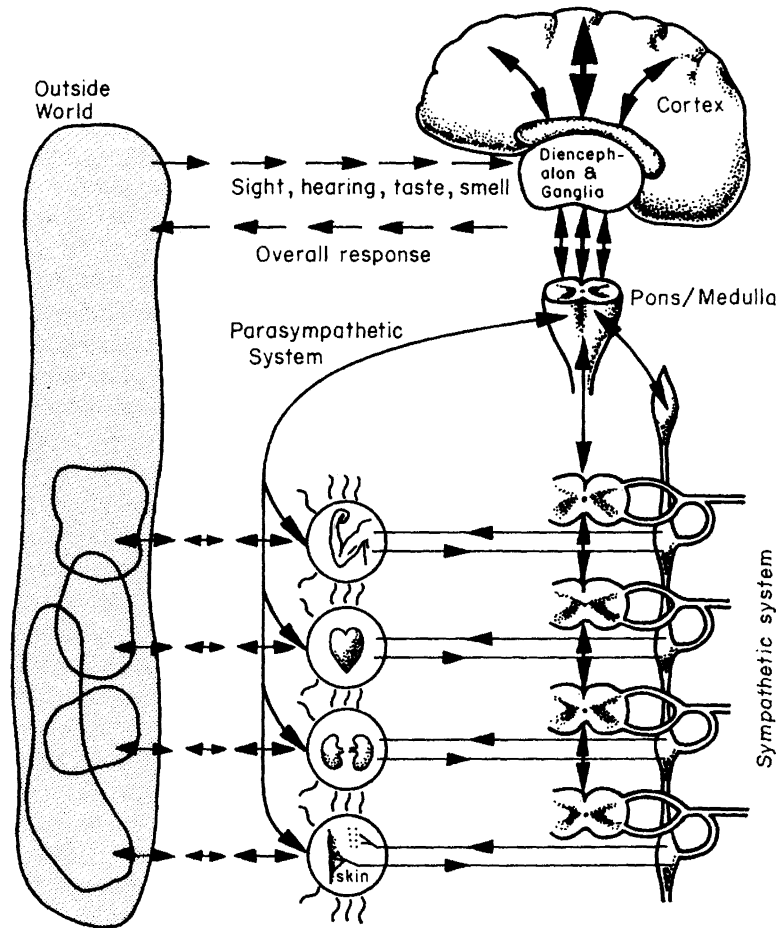
In the ‘here and now’, by working through re-creating the experience, transforming the experience and transforming the transformation, the experience is being transformed, and real management communication is being re-created. **The end result is a process of complete transformation.**



The Viable System Model Diagram

Figure 1

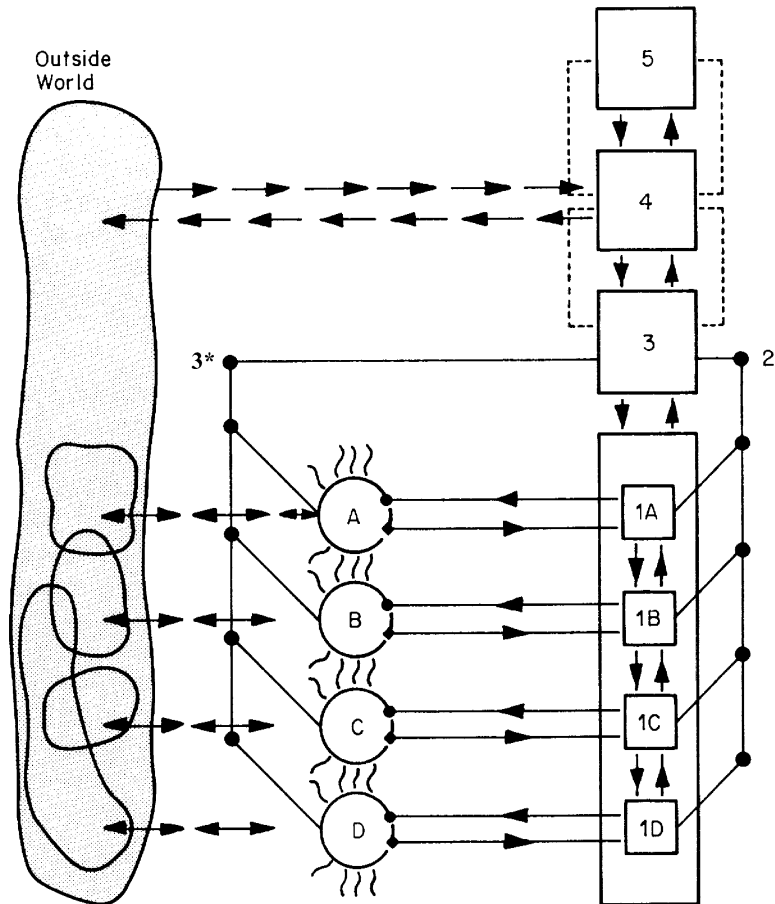
Reprinted by permission from Macmillan Publishers Ltd: Journal of the Operational Research Society
 Vol 35, Figure 1, "The Viable System Model" by Stafford Beer,
 Copyright © 1984 published by Palgrave Macmillan



Beer's simplified representation of
Beer's essential system of communication and control in the one-person-business

Figure 2 [21]

Brain of The Firm, 2nd edn., 1994, by Stafford Beer
 Copyright © 1981, 1994 by John Wiley & Sons Ltd.
 Reproduced with permission of John Wiley & Sons Ltd.



Beer's simplified representation of
**Beer's systemic set of subsystems in
 the one-person-business**

Figure 3 [21]

Brain of The Firm, 2nd edn., 1994, by Stafford Beer
 Copyright © 1981, 1994 by John Wiley & Sons Ltd.
 Reproduced with permission of John Wiley & Sons Ltd.

Endnotes -- Constituent (7): The End Result

The End Result is an integral abstract of the book **THIS IS IT: An Holistic Business Approach**, 1998. The material used in The End Result is fully described in the book and the reproduction of it is minimized below.

- 1) “**natural.** innate”: The Pocket Oxford Dictionary, 5th edn., edited by F.G. Fowler, H.W. Fowler, E. McIntosh, G.W.S. Friedrichsen, 1969.
- 2) “**power.** ability to do or act”: *ibid.*
- 3) “**business.** what keeps one busy or concerns one”: *ibid.*
- 4) “**enterprise.** undertaking”: *ibid.*
- 5) “**company.** being with another or others”: *ibid.*
- 6a) “**function.** the work that a thing is designed to do”: *ibid.*
- 6b) “**thing.** any possible object of thought including persons, material, objects, events, qualities, circumstances, utterances, and acts”: *ibid.*
- 6c) “*a system consists of a group of elements dynamically related in time according to some coherent pattern*” – p. 7, Beer, S., The Heart of Enterprise, Wiley, Chichester, 1994. Copyright © 1979, 1994 by John Wiley & Sons Ltd. Reproduced with permission of John Wiley & Sons Ltd.
- 6d) “**systemic.** of the bodily system as a whole, not confined to a particular part”: The Concise Oxford Dictionary, 4th edn., edited by H.W. Fowler, F.G. Fowler, E. McIntosh, 1951.
- 6e) “**body.** main part of thing”: The Pocket Oxford Dictionary.
- 7a) “**material.** made of matter”.
- 7b) “**form.** arrangement of the parts”.
- 8a) “**essence.** all that makes a thing what it is, indispensable element”: The Pocket Oxford Dictionary.
- 8b) “**essential.** constituting a thing’s essence”: *ibid.*
- 8c) “**essence.** single whole, the conjoining”.
- 9) “*The first principle of control is that the controller is part of the system under control. The controller is not something stuck on to a system by a higher authority which then accords it managerial prerogatives. In any natural system, whether we speak of animal populations or the inner workings of some living organism, the control function is spread through the architecture of the system. It is not an identifiable thing at all, but its existence in some form is inferred from the system’s behaviour. The controller moreover grows with the system, and, if we look back through time, we see that the controller evolved with the system too.*” – p. 25, Beer, S., Brain of The Firm, 2nd edn., Wiley, Chichester, 1994.
- 10) “*Therefore we have an essentially two-dimensional system. This is one organizational secret of the body’s ability to run affairs – a particular organ for example – autonomously (working laterally), and also to integrate that local activity into an organic balance (working vertically).*” – p. 90, Brain.
- 11) “**transform.** re-create in essence”.
- 12a) “*The word ‘autonomy’ is pure Greek; it might be freely translated as meaning ‘a law unto itself’. So when we speak of autonomy, either in the body or in the firm, we mean that the branch or function indicated is responsible for its own regulation.*” – p. 103, Brain.
- 12b) “*The important outcome of regulation is, as we learned from our study of homeostasis, to hold critical response variables within physiological limits.*” – p. 187, Brain.
- 13) “Every Good Regulator of a System must be a Model of that System”, R.C. Conant and W.R. Ashby, International Journal Of Systems Science, 1970.
- 14) “**reality.** being real”: The Pocket Oxford Dictionary.
- 15) “**effect.** result produced”: *ibid.*
- 16) “**organism.** living organized body”.
- 17) p. 132, Brain.
- 18a) “**fact.** thing that is known to be true”: The Pocket Oxford Dictionary.
- 18b) “**exist.** be”: *ibid.*

- 19) “**purpose.** thing that it is designed to effect”: *ibid.*
- 20) “**policy.** course of action”: The New Oxford Illustrated Dictionary, Vol.1, edited by Coulson, J. et al., 1978.
- 21) The diagrams in Figures 2 & 3 were published as the diagrams in Figures 23 & 22 in Brain. In The End Result, the original titles of the diagrams have been replaced with the present titles. – pp. 130-131, Brain.
- 22) 1-6b, 6d-e, 8a-b, 14-15, 18-20: Reproduced by permission of Oxford University Press.
- 23) 9, 10, 12, 17: Copyright © 1981, 1994 by John Wiley & Sons Ltd. Reproduced with permission of John Wiley & Sons Ltd.