

ipria



# Manner of Manufacture

**Assoc Professor David Brennan,  
Melbourne Law School,  
The University of Melbourne**



‘Manner of manufacture’ –  
The best eligibility standard for patent  
consideration in Australia?

David Brennan  
Melbourne Law School  
November 2008

# Context of the ACIP review

- ALRC Report – ‘Genes and Ingenuity’ (2004)
  - ALRC acknowledged that the IPAC (1984) and the IPCRC (2000) both recommended retention
    - Certainty and flexibility
  - ALRC observed that “it is indeed odd that the key concept of ‘manner of manufacture’ depends on a provision in a 380 year old English statute that has long since been repealed in the jurisdiction in which it was enacted; and that the relevant section of the statute is not reproduced in Australian patent legislation”
    - Suggested IPRIA or ACIP should conduct a future review

# What did the *Statute of Monopolies* 1623 do and say?

- Resistance to the odious Crown monopolies led to
  - Elizabeth I's Golden Speech to Parliament (1601)
  - *Darcy v Allen* – the 'Case of Monopolies' (1603)
  - James I's *Book of Bounty* (1610)
    - Purported to confine Crown prerogative to (inter alia) 'Projects of new invention, so they not be contrary to the Law, nor mischievous to the State, by raising prices of commodities at home, or hurt of trade, or otherwise inconvenient'
  - *Statute of Monopolies* (1623)
    - The statute against monopolies
    - Sections 1, 5 and 6 pertinent to invention

1. Royal letters patent 'heretofore made or hereafter to be made' shall be void and of no effect
5. 'Provided nevertheless' that section one shall not extend to any letters patent for the term of 21 years or under, 'heretofore made' of the sole working or making of any manner of new manufacture to the first and true inventor, 'so they be not' contrary to law nor mischievous to the State, by raising the prices of commodities at home, or hurt of trade, or generally inconvenient
6. 'Provided also' that section one shall not extend to any letters patent for the term of 14 years or under, 'hereafter to be made' of the sole working or making of any manner of new manufacture to the first and true inventor, 'so as also they be not' contrary to law nor mischievous to the State, by raising the prices of commodities at home, or hurt of trade, or generally inconvenient

# Lessons from history

- A likely intended meaning was that manners of new manufacture should not be stigmatised as odious monopolies because, being new, they were neither illegitimate restraints on existing trades nor generally inconvenient
  - Novelty was required of subject matter protected by letters patent *in order that* such patents be not inconvenient
  - No reason why in modern law ‘general inconvenience’ can not represent a free-standing exclusionary basis, but this can not be confidently grounded in original meaning

# Modern Australian Law

- The Patents Act 1990
  - Requires subject matter to be ‘a manner of manufacture within the meaning of section 6 of the Statute of Monopolies’ to be eligible for assessment
  - Very few exceptions from this initial screening
    - Medical methods until recanted
    - Human beings and biological processes for their generation: *Woo-Suk Hwang* (stem cell product claims) & *Re Fertilitescentrum & Luminis* (IVF process claims)
  - *NRDC* and *Grant* provide modern judicial meaning
    - Requires a mode or manner of achieving an end result which is an artificially created state of affairs of utility in the field of economic endeavour (*NRDC*) and physical consequence (*Grant*)
      - Compare *Grant* with the similar outcome in *Re Bilski*: US method claims must meet the machine-or-transformation test

# ACIP Review

- ACIP asks whether in light of
  - International norms
  - Economics
  - Ethics and morality
  - The limitations of drafting languagethe manner of manufacture standard should be replaced with a modern codification

# Challenges for any reform

- A statement of the positive standard for what is inherently patentable subject matter
  - Here insert magic words
- A black list of excluded subject matter
  - Doctrinal
    - Discoveries
    - Scientific theories
    - Aesthetic creations
    - Abstract information
  - Pragmatic
    - Computer programs
    - Business methods
  - Moral or ethical
    - Life forms

# European Patent Convention 2000

52(1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, inventive and susceptible of industrial application

52(2) The following shall not be regarded as inventions:

(a) discoveries, scientific theories and mathematical methods;

(b) aesthetic creations;

(c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;

(d) presentations of information

52(3) Paragraph 52(2) shall exclude the patentability of the subject-matter referred to therein only to the extent to which a patent relates to such subject-matter *as such*

## Excluded 52(2) subject-matter

- Categories (a)-(d) derived from the subject matter PCT authorities were excused from searching for
- The ‘as such’ proviso was originally associated only with ‘(a) discoveries, scientific theories and mathematical methods’ but late in EPC drafting history, to ensure a uniformly narrow scope of the exclusions, it was attached to all subject matter excluded by article 52

# Exclusion confusion, as such

## English Court of Appeal

- To avoid exclusion, the claimed invention must make a technical contribution assessed relative to the prior art
- 52(2) matter alone can not count as technical contribution

## EPO Technical Boards of Appeal

- To avoid exclusion, the claimed invention must merely involve a physical element
- However in assessing inventiveness excluded matter is treated as prior art; an inventive technical step is required

# The computer-implemented invention failed EU directive of 2005

- Article 3
  - In order for a computer-implemented invention to involve an inventive step, it must make a technical contribution to the state of the art in a field of technology
- Article 4
  - Inventions involving computer programs which merely implement business, mathematical or other methods, and do not produce any technical effects beyond the normal physical interactions between a program and the computer shall not be patentable

# Recent ‘computer program’ referral to the EPO Enlarged Board of Appeal

- October 2008 referral by the EPO President of four sets of questions relating to the article 52 computer program exclusion
  - Question 1 ‘Can a computer program only be excluded as a computer program as such if it is explicitly claimed as a computer program’
  - Question 3(A) ‘Must a claimed feature cause a technical effect on a physical entity in the real world in order to contribute a technical character to the claim?’

# European Patent Convention 2000

Article 53 provides that patents shall not be granted in respect of

- a) Inventions the exploitation or publication of which would be contrary to *ordre public* or morality, for which national law is not determinative
- b) Plants or animals, or essentially biological processes for the production of plants or animals, not including microbiological processes
- c) Methods of therapeutic treatment

# 1998 EU Biotech Directive (EBD)

## (Inscribed into Regulations under the EPC)

**Art 4(2)** Plant/animal inventions shall be patentable if the technical feasibility of the invention is not confined to a single species

### **Art 5**

1. Human body, at various stages of formation, and simple discovery of one of its elements (a gene) can not constitute a patentable invention
2. An element isolated from the human body by technical process (a gene) may constitute a patentable invention
3. The industrial application of a gene must be disclosed

**Art 6(2)** The following deemed contrary to *ordre public*/morality

- a. Processes for cloning human beings
- b. Processes for modifying the germ line genetic identity of human beings
- c. Uses of human embryos for industrial/commercial purposes
- d. Processes which genetically modify animals likely to cause suffering without substantial medical benefit to man

# Current ‘stem cell’ referral to the EPO Enlarged Board of Appeal

- 2005 referral by an EPO Technical Board of Appeal where product claim related to embryonic stem cells, and the invention (at the priority date) required the destruction of human embryos
- Questions referred to Enlarged Board of Appeal
  - Does EBD art 6(2)(c) or EPC art 53(a) forbid the patenting of claims directed to products that could only be made by the destruction of human embryos?
  - What if the products could be now made without the destruction of human embryos?

# Lessons from Europe

- Where article 52 excluded subject matter is closely intermingled with a claimed functional use, cases resolve to whether an independent ‘technical’ aspect can be identified
  - This has led to irredeemably obscure law
- Moral exclusions are ill-suited to a property rights system
  - The scope of lawful research and development is better dealt with in public law
    - Stem cells regulatory solution following Lockhart Review and conscience vote

# What will ACIP do?

- Andrew Christie in 2000
  - ‘It is commonly thought that *NRDC* is a watershed decision because it generalised the concept of and test for inherent patentability, and thus it is the source of the modern law on the inherent patentability requirement. It might be said that *NRDC* is in fact a bombshell decision, because it so generalised the concept of and test for inherent patentability that in practice the requirement has been annihilated.’

# Hoffmann in *Biogen*

- Suggests that requirements such as novelty, inventive step and capacity for industrial application ‘probably contain every element of the concept of an invention’
  - ‘Judges would therefore be well advised to put on one side their intuitive sense of what constitutes an invention until they have considered the questions of novelty, inventiveness and so forth.’

# Some suggestions for reform

- A statement of the positive standard for what is inherently patentable subject matter
  - Leave the judicially glossed manner of manufacture standard in place  
(or if codification is really thought necessary ...)
  - *A human stipulation of integers for a product or a method which produces functionality and some physical effect*
- A black list of excluded subject matter
  - Doctrinal
    - None required if functionality and physicality are given effect in the positive standard
  - Pragmatic
    - Discretion to refuse where exploitation or publication likely to be contrary to public policy
  - Moral or ethical
    - Inventions necessarily the result of research that would have been conducted unlawfully at the priority date