

The Essence of Winning & Losing

28 June 1995

John R. Boyd
(Rev. January 1996)

Key Statements

- *Without our genetic heritage, cultural traditions, and previous experiences*, we do not possess an *implicit* repertoire of psychophysical skills shaped by environments and changes that have been previously experienced.
- *Without analyses and synthesis*, across a variety of domains or across a variety of competing/independent channels of information, we cannot evolve new repertoires to deal with unfamiliar phenomena or unforeseen change.
- *Without a many-sided implicit cross-referencing process of projection, empathy, correlation, and rejection*, (across these many different domains or channels of information), we cannot even do *analyses* and *synthesis*.
- *Without OODA loops*, we can neither sense, hence observe, thereby collect a variety of information for the above processes, nor decide as well as implement actions in accord with those processes.

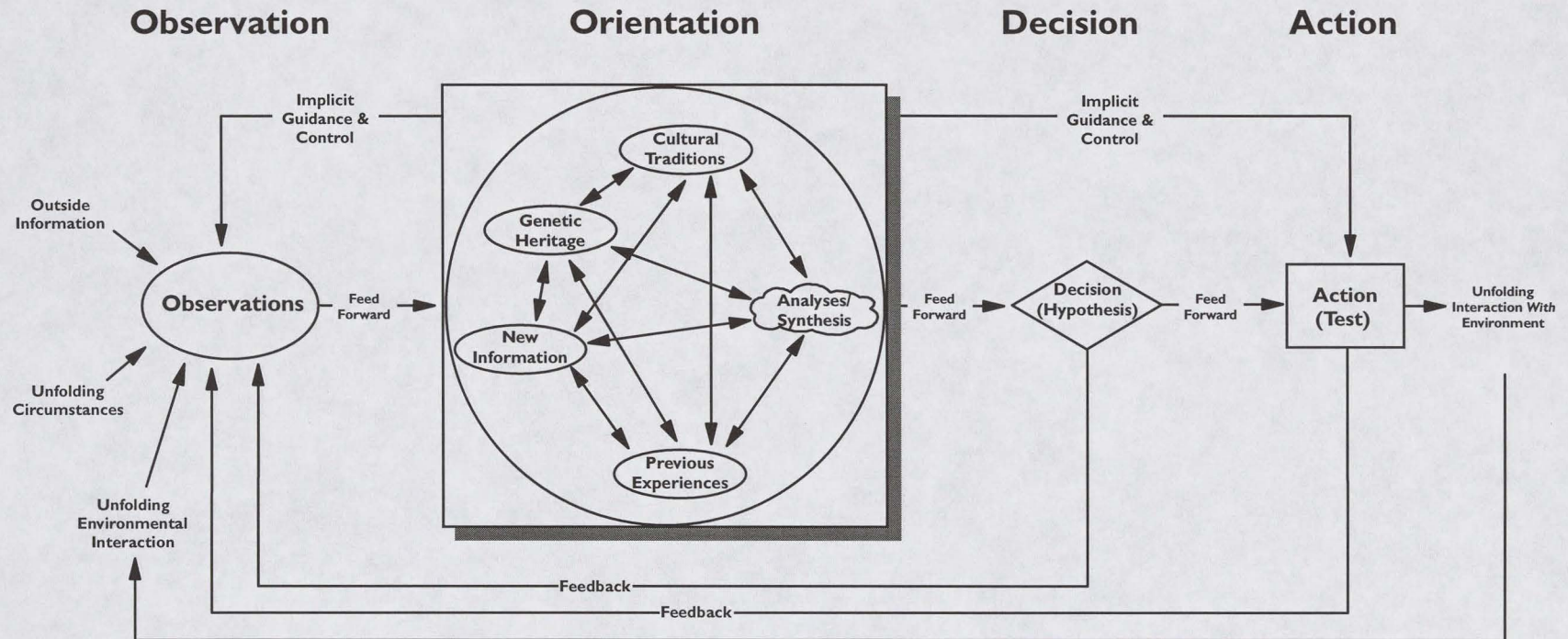
or put another way

- *Without OODA loops* embracing all the above and *without* the ability to get inside other *OODA loops* (or other environments), we will find it impossible to comprehend, shape, adapt to, and in turn be shaped by an unfolding, evolving reality that is uncertain, everchanging, unpredictable.

**We can further clarify
these statements and
their interactions by the
following sketch**

The OODA "Loop"

Sketch



Insights

- Note how orientation shapes observation, shapes decision, shapes action, and, in turn, is shaped by the feedback and other phenomena coming into our sensing or observation window.
- Also note how the entire "loop" (not just orientation) is an ongoing many-sided implicit cross-referencing process of projection, empathy, correlation, and rejection.

Illumination

By pulling all this together, we can see that the *Key Statements*, *OODA Loop Sketch*, and related *Insights* represent an evolving, open-ended, far-from-equilibrium process of *self-organization*, *emergence* and *natural selection*.

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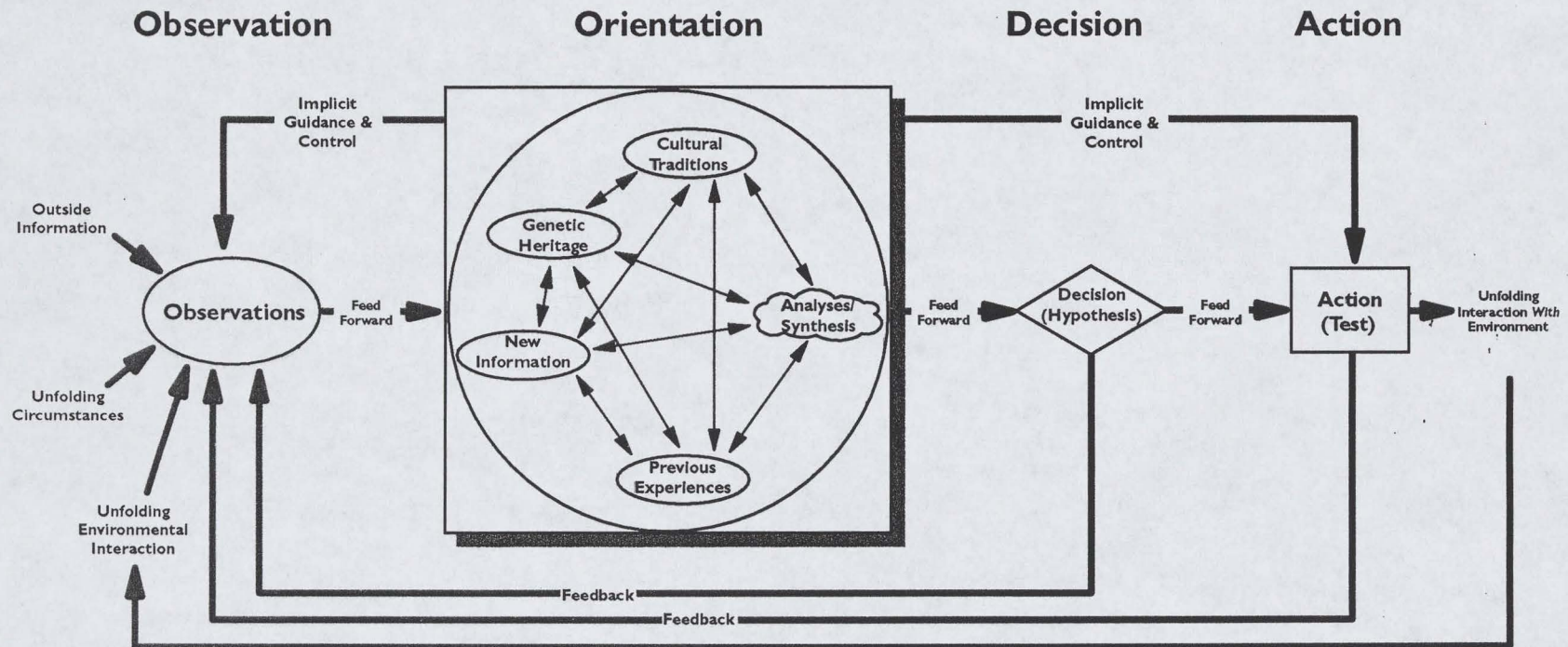
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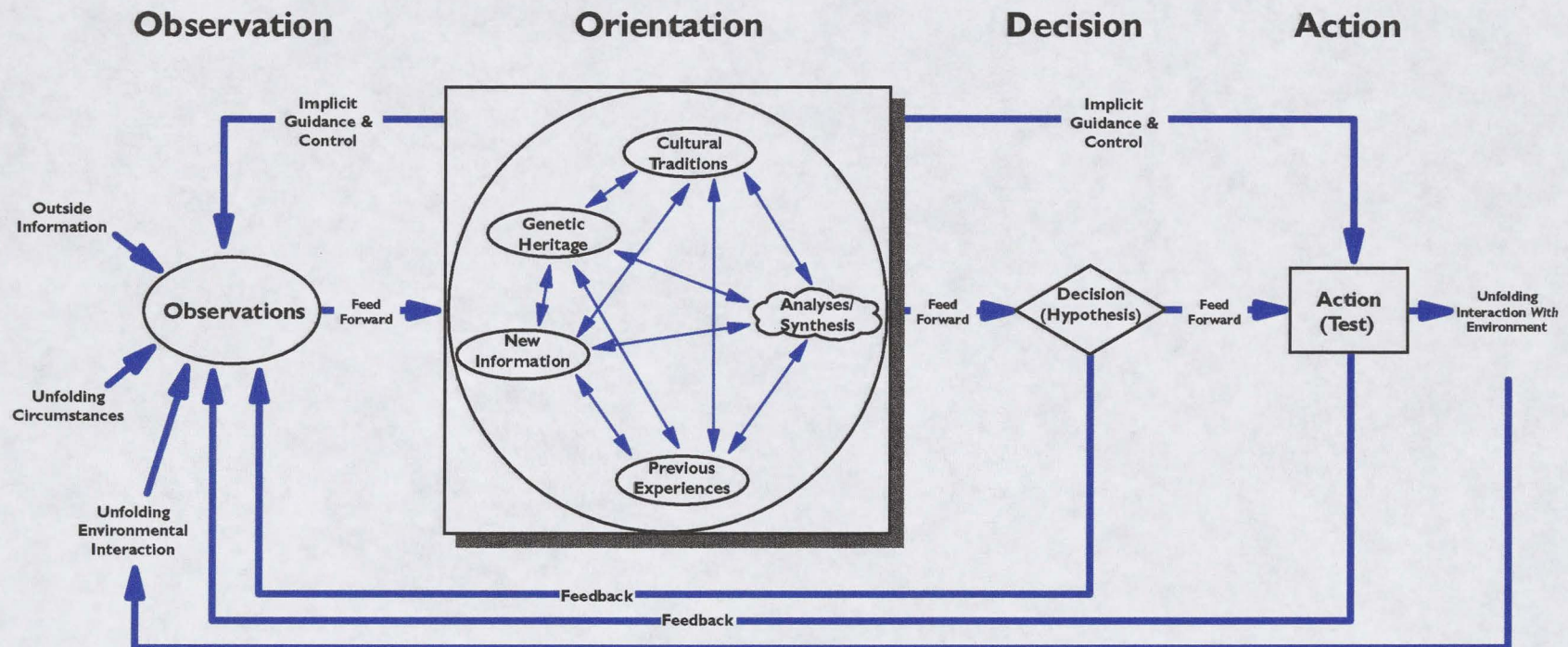
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