

FIGURE 9.2

*Centralization/Decentralization of Authority Relevant to Crises*INTERACTIONS*Linear**Complex*C
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T CENTRALIZATION for tight
i coupling.
g CENTRALIZATION compatible
h with linear interactions (expected,
t visible).

Dams, power grids, some
 continuous processing, rail
 and marine transport.

CENTRALIZATION to cope with
 tight coupling (unquestioned
 obedience, immediate response).
 DECENTRALIZATION to cope with
 unplanned interactions of failures
 (careful slow search by those closest
 to subsystems).
 Demands are incompatible.

Nuclear plants, weapons; DNA,
 chemical plants, aircraft, space
 missions.

1 2

3 CENTRALIZATION or DECEN-
 TRALIZATION possible. Few
 complex interactions; component
 failure accidents can be handled from
 above or below. Tastes of elites and
 tradition determine structure.

L Most manufacturing, trade schools,
o single-goal agencies (motor
o vehicles, post office).
s
e

4 DECENTRALIZATION for complex
 interactions desirable.
 DECENTRALIZATION for loose
 coupling desirable (allows people to
 devise indigenous substitutions and
 alternative paths), since system
 accidents possible.

Mining, R&D firms, multi-goal
 agencies (welfare, DOE, OMB),
 universities.