Overview
"To be most effective, organizational structures should be appropriate to the work performed and/or to the environmental conditions facing the organization." (Schoonhoven, 1981) In other words, the optimal way of structuring work will be contingent on characteristics of both the work being performed (i.e., the task) and the environment where the work is performed (i.e., task environment).
Example Application to Implementation Science
Leeman, J., Baquero, B., Bender, M., Choy-Brown, M., Ko, L. K., Nilsen, P., . . . Birken, S. A. (2019). Advancing the use of organization theory in implementation science. *Preventive medicine, 129*, 105832.

Construct	**Definition**
Task	The work that is performed
Task environment	The context where work is performed (both the organizational setting and its wider, socio-political-economic context)
Uncertainty in the task or task environment	The gap between the amount of information that is needed and the amount of information that is available to achieve a given level of performance on a task Factors that may contribute to uncertainty include: • Rate of technical change (how rapidly is the technology required to complete a task changing?) • Lack of information about the availability of resources and stakeholder preferences and demand • Strength/quality of evidence in support of a tasks' impact on intended outcomes
How a task/work is structured: Programmed versus un-programmed coordination (integration)	• Programmed coordination: The activities involved in completing a task are specified and codified in advance via (1) rules and programs (i.e., standardization) and (2) centralization of decision making and authority arrangements • Unprogrammed coordination: The activities involved in completing a task are not specified in advance by the organization; activities are worked out by organization members via (1) professionalization deferring to expertise, (2) providing additional time and resources for collaboration, (3) creation of self-contained tasks, (4) providing real-time data to frontline individuals and teams, and (5) promoting and supporting horizontal coordination and communication
Interdependence	To what degree/extent different actors must interact to complete work.
Differentiation	The extent to which, within an organization, different parts/departments perform different tasks and have different relevant sub-environments.
Propositions	

1. The optimal structure of work is contingent on the uncertainty of the task and task environment: When uncertainty is higher, unprogrammed means of coordination will be the more effective way to structure a task; when uncertainty is low, programmed means of coordination will be more effective.
2. Higher levels of interdependence (both within and between departments) will require greater investment in coordination (integration).
3. The greater the differentiation between departments, the more difficult it will be to coordinate (integrate).

Potential Relevance to Implementation Science

1. Contingency theory suggests that **implementation strategies** should include assessing (1) uncertainty and interdependence related to the task and (2) uncertainty in the task environment.
2. If uncertainty is low, the **adoption decision** should favor a standardized, manualized, prescriptive evidence-based intervention.
3. If uncertainty is low, **implementation strategies** should seek to standardize implementation (e.g., mandate change).
4. If uncertainty is high, the **adoption decision** should favor more flexible EBIs and/or menus of EBIs
5. If uncertainty is high, **implementation strategies** should seek to promote coordination and communication (e.g., audit and provide feedback; build a coalition; create new clinical teams).
6. If the task requires interdependent interactions between departments, **implementation strategies** should strengthen coordination and communication between departments (e.g., implementation teams, local consensus discussion, cyclical small tests of change).

Criticisms and/or Bounds on the Theory

Schoonhoven, C. B. (1981). Problems with contingency theory: testing assumptions hidden within the language of contingency" theory". *Administrative science quarterly*, 349-377.

1. “Ambiguous character of the ‘theoretical’ statements
2. Implied hypothesized interactions among variables
3. Unspecified functional form of hypothesized interactions
4. Potentially misplaced assumption of linearity of hypothesized relationships
5. Potentially misplaced assumption of symmetrical relationships among constructs (a change in independent variable produces and equal and symmetrical change in the dependent variable)

Donaldson L. The Contingency Theory of Organizations. Foundations for Organizational Science. 2001

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Kim, K. K. (1988). Organizational coordination and performance in hospital accounting information systems: An empirical investigation. *Accounting Review*, 472-489.

Lawrence, P. R., & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative science quarterly*, 1-47.

Nohria, N., & Gulati, R. (1996). Is slack good or bad for innovation? *Academy of management Journal, 39*(5), 1245-1264.

Type: Theory (grand, mid-range), perspective, model, etc.

- Mid-range theory

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