Models, Modeling, and Models

Wayne D. Gray

Cognitive Science Department, Rensselaer Polytechnic Institute

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TETRIS IS A TASK WE ALL KNOW!!

■ & some of us study

- Terlecki, M. S., Newcombe, N. S., & Little, M. (2008). Durable and generalized effects of spatial experience on mental rotation: gender differences in growth patterns. *Applied Cognitive Psychology*, 22(7), 996–1013.
- Kirsh, D. & Maglio, P. (1994). On distinguishing epistemic from pragmatic action. *Cognitive Science*, 18(4), 513–549.
- Maglio, P. P., Wenger, M. J., & Copeland, A. M. (2008). Evidence for the role of self-priming in epistemic action: expertise and the effective. use of memory. *Acta Psychologica*, 127(1), 72–88.



SHERIDAN'S TAXONOMY OF MODEL ATTRIBUTES

	ATTRIBUTE	1 (LEAST)	2 (MODERATE)	3 (MOST)
Α	DATA	No basis in	Describes existing	Predicts future
	APPLICABILITY	existing data	data	data
В	DIMENSIONALITY	Single input,	Multi input, single	Multi input, multi
		single output	output	output
С	METRICITY	Limited to nominal	Primarily ordinal	Entirely cardinal
		relationships	relationships	relationships
D	ROBUSTNESS	Unique focus on	Moderate focus to	Comprehensive of
		limited objects or	a variety of	a wide slice of
		events	objects or events	nature
Е	SOCIAL PENETRATION	Confined to a mental model	Communicated to	Accepted and used
			the relevant	by the relevant
			community	community



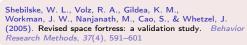
ORIGINAL SPACE FORTRESS (SF1): The Learning Strategies Project

- Early-80's
- DARPA funded (sort of)
- Mané and Donchin, 1989



SF3 – REVISED SPACE FORTRESS

- A nearly identical port of SF2 to play on the machines available in the 2000's
- Joystick dynamics changed in undeterminable ways between SF2 (used custom software now lost to history) and SF3
- Data logged once per second
- Setting up an experiment in RSF is a cumbersome process
 - Requires two computers
 - A server and client that need to be run independently
 - Experimental conditions need to be set up and users added to an Access[™]database before the game can be played





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