

Behavioral and Brain Sciences

An International Journal of Current Research
and Theory with Open Peer Commentary

VOLUME 12, No. 2, 1989



SWETS & ZEITLINGER B.V.
LISSE - THE NETHERLANDS - 1993

Reprinted with permission of Cambridge University Press

Contents Volume 12:2 June 1989

Gottlieb, G. L., Corcos, D. M. & Agarwal, G. C. Strategies for the control of voluntary movements with one mechanical degree of freedom 189

Open Peer Commentary

Adamovich, S. V. & Feldman, A. G. The prerequisites for one-joint motor control theories	210	Lacquaniti, F. Strategies for single-joint movements should also work for multijoint movements	225
Bridgeman, B. Skeletal and oculomotor control systems compared	212	Latash, M. L. Direct pattern-imposing control or dynamic regulation?	226
Bullock, D. Saturation is not an evolutionarily stable strategy	212	Loeb, G. E. Strategies for the control of studies of voluntary movements with one mechanical degree of freedom	227
Burns, B. D. & Summers, J. J. Strategies and motor programs	214	MacKay, W. A. Braking may be more critical than acceleration	227
Cordo, P. J., Horak, F. B. & Moore, S. P. On to real-life movements	214	Neilson, P. D. EMG bursts, sampling, and strategy in movement control	228
Flanders, M. Pulses, bursts, and single-joint movements	215	Newell, K. M., van Emmerik, R. E. A. & McDonald, P. V. On simple movements and complex theories (and vice versa)	229
Flash, T. Speed-insensitive and speed-sensitive strategies in multijoint movements	215	Partridge, L. D. At least two strategies	230
Chez, C. & Gordon, J. Strategies are a means to an end	216	Ramos, C., Stark, L. & Hannaford, B. Time optimality, proprioception, and the triphasic EMG pattern	231
Gielen, C. C. A. M. & Denier van der Gon, J. J. If a particular strategy is used, what aspects of the movement are controlled?	218	Teulings, H.-L. & Thomassen, A. J. W. M. Is handwriting a mixed strategy or a mixture of strategies?	232
Godaux, E. The strategy used to increase the amplitude of the movement varies with the muscle studied	219	Wallace, S. A. & Weeks, D. L. Initiating voluntary movements: Wrong theories for the wrong behavior?	233
Hallett, M. Experiment and reality	219	Walter, C. B. Elementary conditions for elemental movement strategies	234
Hasan, Z. & Karst, G. M. Task variables and the saturation of the excitation pulse	219	Wann, J. P., Nimmo-Smith, I. & Wing, A. M. Why are "strategies" sensitive? Smoothing the way for a raison d'être	235
Heuer, H. Movement strategies as points on equal-outcome curves	220	Windhorst, U. What is adapted in strategy-governed movements?	236
Hoffman, D. S. & Strick, P. L. Force requirements and patterns of muscle activity	221		
Holding, D. H. Two ways to reduce motor programming load	224	Authors' Response	
Houk, J. C. Bursts of discharge recorded from the red nucleus may provide real measures of Gottlieb's excitation pulses	224	Corcos, D. M., Gottlieb, G. L. & Agarwal, G. C. Does constraining movements constrain the development of movement theories?	237
Kelso, J. A. S. Degrees of freedom, dynamical laws, and boundary conditions for discrete voluntary movement	225		

Krueger, L. E. Reconciling Fechner and Stevens: Toward a unified psychophysical law 251

Open Peer Commentary

Allik, J. Is a unified psychophysical law realistic?	267	Indow, T. Psychophysics: On the possibility of another approach	276
Anderson, N. H. Integration psychophysics	268	Laming, D. Experimental evidence for Fechner's and Stevens's laws	277
Baird, J. C. The fickle measuring instrument	269	Lukas, J. On various ways of establishing a psychophysical function empirically	281
Birnbaum, M. H. To resolve Fechner versus Stevens: Settle the dispute concerning "ratios" and "differences"	270	Macmillan, N. A., Braid, L. D. & Durlach, N. I. Psychophysical laws: A call for deregulation	282
Boynton, R. M. About assumptions and exponents	271	Marks, L. E. G and S go fishing	282
Brybaert, M. & d'Ydewalle, G. Unifying psychophysics: And what if things are not so simple?	271	McGill, W. J. Rubber scales and partial quantification	283
Dorfman, D. D. Jnds and ROCs	273	Murray, D. J. Nineteenth-century attempts to decide between psychophysical laws	284
Geissler, H.-G. Psychophysical law: The need for more than one level of explanation	274	Norwich, K. H. The Fechner-Stevens law is the law of transmission of information	285
Gescheider, G. A. Are the power exponents of magnitude-estimation functions too high?	275	Parker, S. Psychophysical law: Some doubts about unification	286
Hellman, R. P. Is Stevens's power law valid?	276		

Poulton, E. C. Uncertain size of exponent when judging without familiar units	286	Ward, L. M. Option 4: Forswear <i>the</i> psychophysical law	295
Rule, S. J. Magnitude scales, category scales, and number scales	288	Warren, R. M. Sensory magnitudes and their physical correlates	296
Scheerer, E. Conjuring Fechner's spirit	288	Wasserman, G. S. & Wang-Bennett, L. T. Unity and diversity of neuroelectric and psychophysical functions: The invariance question	297
Schneider, B. Is there really only one representation for stimulus intensity?	290	Weiss, D. J. Psychophysics and metaphysics	298
Shepard, R. N. On the origin and function of the psychophysical transformation	290		
Teghtsoonian, R. & Teghtsoonian, M. Unified psychophysics: Wouldn't it be lovely . . .	292		
Treisman, M. Sensory scaling: Unanswered questions	293		
Wagner, M. Fantasies in psychophysical scaling: Do category estimates reflect the true psychophysical scale?	294	Author's Response	
		Krueger, L. E. Psychophysical law: Keep it simple	299

Lightfoot, D. The child's trigger experience: Degree-0 learnability 321

Open Peer Commentary		Lasnik, H. The nature of triggering data	349
Baker, C. L. Some observations on degree of learnability	334	Lorch, M. P. The true nature of the linguistic trigger	350
Buckingham, H. W. On triggers	335	McCawley, J. D. INFL', Spec, and other fabulous beasts	350
Cinque, G. Parameter setting in "instantaneous" and real-time acquisition	336	Morgan, J. L. Learnability considerations and the nature of trigger experiences in language acquisition	352
Clark, R. Causality and parameter setting	337	Neale, S. On <i>one</i> as an anaphor	353
Freidin, R. & Quicoli, A. C. Zero-stimulation for parameter setting	338	O'Grady, W. Two perspectives on learnability	354
Grimshaw, A. D. Infinitely nested Chinese "black boxes": Linguists and the search for Universal (innate) Grammar	339	Rizzi, L. On the format for parameters	355
Grimshaw, J. & Pinker, S. Positive and negative evidence in language acquisition	341	Schlesinger, I. M. Language acquisition: Dubious assumptions and a specious explanatory principle	356
Grodzinsky, Y. The language learner: A trigger-happy kid?	342	Snow, C. E. & Tomasello, M. Data on language input: Incomprehensible omission indeed!	357
Haider, H. Language acquisition: What triggers what?	343	Stabler, Jr., E. P. What's a trigger?	358
Harris, R. Degree-0 explanation	344	Vincent, N. Observing obsolescence	360
Joshi, A. K. A possible mathematical specification of "degree-0" or "degree-0 plus a little" learnability	345	Wasow, T. Why degree-0?	361
Koster, J. Does Universal Grammar exist?	347	Wilkins, W. Why degree-0?	362
Kroch, A. Language learning and language change	348	Williams, E. Linguistic variation and learnability	363
		Author's Response	
		Lightfoot, D. Matching parameters to simple triggers	364

Continuing Commentary

On Macphail, E. M. (1987) The comparative psychology of intelligence. BBS 10:645–95. 377

Author's Response

Macphail, E. M. Comparative psychology: A steady-state universe 377