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## Transfer of Function of Visual Stimuli through Equivalence Relations with Verbal Stimuli

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Transfer of function through equivalence relations may explain verbal processes that occur in psychological disorders and during therapy. However, methodological problems have affected the results and analyses of experimental studies. We established equivalence relations between visual stimuli (paintings) and descriptive words or phrases with a positive or negative function with one stimulus to test whether this function transferred to other paintings in the same class. The study was replicated with 10 adult participants with pretest and posttest evaluations, and the experimental procedure was automated with a PC and specially designed software. Although all participants established the equivalence relations, between-stimuli and between-subject variability was considerable. Transfer of function appeared in four participants. The variability is consistent with earlier results, and the findings point strongly to the relevance of other variables such as previous history and language.

Key words: equivalence relations, transfer of function, language, matching-to-sample, alternating treatment design

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# Deviations from Matching in Consumer Choice

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Previous research has demonstrated that the matching law can be successfully applied to consumers' patterns of choice with substitutable products at both individual and aggregated (across a number of individuals) levels of analysis. This research aimed to clarify and generalize previous results found at an individual level using independent and complementary products. Aggregated results show that consumers behave according to the predictions of the matching law with qualitatively different reinforcers only when the data are considered on a weekly basis, i.e., as determined by a series of analogic FR schedules. For analogic VR schedules consumers showed matching independently of the degree of substitutability between the products. Further research is needed at an individual level for which the results were not conclusive, and with more extreme forms of complementarity between products.

Key words: matching theory, consumer behavior, behavioral economics, substitutability, antimatching.

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## Effects of differential and shared consequences on choice between individual and social contingencies

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Four studies evaluated the effects of shared and differential earnings on the choice between individual and partial-altruism contingencies. The experimental situation consisted of solving a puzzle on two synchronized computer screens. Thirty two college students were assigned to sixteen dyads, four in each experiment. Experiment 1 compared differential to non-differential exchange of points. Experiment 2 compared individual to shared administration of points under non-differential exchange. In Experiment 3, conditions were the same as in Experiment 2, but with differential exchange of points. Experiment 4 was like Experiment 3,

but participants were located in separate rooms. Results showed that most dyads preferred to respond to the social contingency in which both participants were affected. However, sharing and differential exchange of earnings did not seem to affect choice. Verbal agreements within dyads, prior to solving the task, seem to be the common factor accounting for choice of the social contingency. Results are discussed in terms of the relationship between language and social behavior.

Key words: individual contingencies, social contingencies, partial altruism, differential earnings, verbal agreement.

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## Presence and absence of stimulus control in temporally defined schedules

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The present experiment evaluated the development of stimulus control in temporally defined schedules. Pigeons received reinforcement for the first key-peck in the presence of a nine-dot pattern in  $t^D$  subcycle, whereas pecks at the same dot pattern as well as six other ones (test stimuli) were extinguished during  $t^A$  subcycle. Across different groups test stimuli were presented at the beginning, at the middle, and at the end of  $t^A$ . Sharp and symmetrical gradients were observed with test stimuli at the beginning and at the middle of  $t^A$ , whereas higher flat or asymmetrical gradients were observed at the end of  $t^A$ . These results do not support the idea that limited-hold contingencies or correlated effects prevent stimulus control.

Key words: temporally defined schedules, limited-hold, stimulus control, generalization gradients, pigeons

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## Habit reversal training as a treatment for refractory OCD – A case study

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Nearly 4 million American men and women from all geographic, ethnic, or economic backgrounds are diagnosed with obsessive-compulsive disorder (OCD). While a combination of cognitive behaviour therapy (CBT) and psycho-pharmaca seems successful for 50% to 60% of patients, for intractable cases the typical recommendation is more medication or more CBT, however there is little evidence that the intensified treatment regimen is successful. In this paper, habit reversal training, including awareness training, competing/other response training, self-monitoring, social support, and generalisation, was implemented with a long-term treatment-refractory OCD patient. Treatment gains and long-term maintenance indicate the potential of habit reversal procedures with these patients.

Key words: Obsessional-compulsive disorder, habit reversal, relaxation, evidence-based practice, mentalism, CBT.

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# Gerontology and applied social technology

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As the ageing population grows, more and more interest is given to the behavioural deficits and excesses of the elderly. Whereas most gerontological research follows the medical model, research in Applied Behaviour Analysis (ABA) directs attention to an individual's interaction with the environment in order to explain their behaviours. When functional relationships between the environment and behaviour are identified, it becomes possible to change behaviour to the benefit of the individual. This paper outlines behavioural research, as compared to other psychological approaches, and the many ways it has positively improved quality of life issues for both the community dwelling elderly and those in long-term care settings.

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## Acquisition and Maintenance of Visual-Visual and Visual-Olfactory Equivalence Classes

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Cross-modal equivalence formation has been of interest to behavior analysts recently because of its potential benefits over typical visual based learning. The present experiment was conducted to examine this possibility with the acquisition and maintenance of visual-olfactory classes of stimuli as compared to visual-visual classes of stimuli. Four college students completed the training and testing of visual-visual and visual-olfactory sets of stimuli including three maintenance probes followed by training and testing for merging of the classes. Results demonstrated a slight advantage in acquisition and maintenance for the visual-olfactory set of stimuli. Implications for these findings in applied settings and directions for future research are suggested.

Key words: stimulus equivalence, cross-modal, visual-olfactory, college students.

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