Available online at www.sciencedirect.com
SCIENCE DIRECT®
ELSEVIER
Journal of Economic Psychology 24 (2003) 675–695
JOURNAL OF Economic Psychology
www.elsevier.com/locate/joep

The behavioral economics of consumer brand choice: Establishing a methodology ☆

Gordon R. Foxall *, Teresa C. Schrezenmaier

Cardiff Business School, Cardiff University, Aberconway Building, Colum Drive, Cardiff, CF10 3EU, Wales, UK

Abstract

Matching theory predicts choices on concurrent variable ratio schedules will show maximization via exclusive choice of the richest schedule. Preliminary research has revealed patterns of brand selection data from individual consumers which show that consumer behavior exhibits both matching and maximization. In this paper, we summarize the results of a study of 80 consumers' brand selections for nine product categories which indicate that the patterns identified in our initial research can be generalized. We discuss the implications of our findings for research in the behavioral economics of consumption in marketing-oriented economies and for the issue of what and how consumers maximize.

PsycINFO classification: 3900
JEL classification: M310
Keywords: Behavioral economics; Consumer choice; Brand selection; Matching law; Maximization; Marketing

> I would like to issue a challenge to current and future researchers to find new, creative ways to investigate, outside the laboratory, the quantitative models arising from the Harvard Pigeon Lab… The researchers – as opposed to the clinicians – who have followed in [Skinner's] theoretical footsteps…have very often focused on tight, and then tighter, and then even

☆ The refereeing procedure for this paper was handled by Professor A.W. Dnes, Bournemouth University. We are grateful to the referees for critical comments and advice.
* Corresponding author. Tel.: +44-29-20-87-4275; fax: +44-29-20-87-4419.
E-mail address: foxallg@cardiff.ac.uk (G.R. Foxall).

0167-4870/$ - see front matter
doi:10.1016/S0167-4870(03)00008-4

> tighter controls of variables in the laboratory. There is no question that such research is extremely important to our understanding of the principles of behavior. It should not be, however, the only type of research being conducted. There are a great many benefits to an outside-the-laboratory, empirical approach. (Logue, 2002, pp. 363–364)

1. Introduction

It is well established by marketing research that only comparatively few buyers of a product category (such as baked beans or breakfast cereals) are entirely loyal to a single brand (Heinz or Kellogg's Frosties, for instance). Most buyers practice multi-brand purchasing over a period of, say, three months, selecting apparently randomly among a small subset ('repertoire') of tried and tested brands (Ehrenberg, 1988). Data on buyer behavior for ready-to-eat breakfast cereals in the US, reported by consumer panel members are typical: "The average Shredded Wheat buyer in the year buys it about 4 times in that year, and buys other brands about 37 times. About 12 million US households [buy] Nabisco's Shredded Wheat in the year. But it is not obvious whether these households are to be thought of as Shredded Wheat customers, or as other brands' customers who/occasionally bought Shredded Wheat" (Ehrenberg & Goodhardt, 1977, p. 1.4). Similar patterns are apparent for the vast majority of fast-moving consumer goods in steady-state markets (i.e., those with only a slight upward year-on-year trend in sales) in most affluent, consumer-oriented economies. Each brand attracts a relatively small proportion of the buyers of the product category who purchase that brand exclusively during the period under review: as that period lengthens, this proportion declines. Multi-brand purchasing is the norm to the extent that even the heaviest purchasers of a given brand buy other brands within the category much more than they buy their favorite brand over the course of say a year.

The broad similarity of this pattern of choice to that found in studies of matching (Herrnstein, 1997) invites a deeper analysis (Foxall, 1999). In order to explain such patterns in terms of the decision mechanisms employed by buyers of such products, this investigation has turned to the work of behavior analysts and experimental economists who have related choices systematically to the schedule of rewards to which they lead. Most of the work of these behavioral economists has been conducted with animals such as rats and pigeons as their subjects, though similar results, which also support the basic axioms of economic analysis, have been found for human participants in token economies and field experiments concerned, for example, with energy conservation. However, with the exception of the pilot studies which led to the present investigation (Foxall & James, 2002, in press), no work to date has attempted to discover the extent to which these principles of economic behavior apply to brand choice among human consumers.

Those pilot investigations proposed and implemented a means of investigation in which consumers' actual brand expenditures are related to the relative rates of reinforcement they produce. Their results exhibit both matching and maximization and