

***The behavioural perspective model: A proposed theoretical framework to understand and predict online consumer behaviour***

**Asle Fagerstrøm**

The Norwegian School of Information Technology, Norway  
asle.fagerstrom@nith.no

**Abstract**

Through textual analysis this paper introduces the Behavioural Perspective Model (BPM) as an alternative stance to attitude theories such as Theory of Reason Action (TRA) and Theory of Planned Behaviour (TPB) which dominate research on online consumer behaviour. The BPM frameworks first see consumer behaviour as a result of previous behaviour consequences. Second, the BPM include consumer behaviour setting as an important predicting variable otherwise lacking in cognitive attitude theories like TRA and TPB. Based on the BPM framework, concepts like chaining, motivation and rule-governed behaviour are discussed in relationship to each other to understand and predict online consumer behaviour. Further research is needed to evaluate how textual analysis of this sort contributes to an Information Systems (IS) science of consumer behaviour.

**Keywords:** *Online consumer behaviour, behaviour psychology, Behavioural Perspective Model*

**Introduction**

Online shopping has increased since the Internet was commercialized in the beginning of 1990. However, there are still challenges to understand and predict online consumer behaviour so that electronic commerce application can better be adapted. The primary objective of this paper is to reply to the request from the IS community to explain online consumer behaviour in a way which accounts for more IT related variables (Weber 2003). The Behavioural Perspective Model (BPM) is suggested as a theoretical framework for a more exact study of shopping behaviour online.

Text books that cover online consumer behaviour typically describe the subject from a comprehensive model which has the following structure (Turban, King et al. 2004): inputs, process and outputs. These types of comprehensive models are useful in a learning situation and as a concept in everyday reflection about online consumer behaviour. But they are useless as a framework when trying to understand and predict online consumer behaviour because of the high level of abstraction (Tuck 1976). For that reason, they have been rejected by researchers on consumer behaviour.

What then are the most used theories on online consumer research? A meta-analysis shows that research on online consumer behaviour within the IS community can be placed in three categories (Limayem, Cheung et al. 2004): (1) attitude toward online shopping, (2) intention to shop online and (3) online shopping behaviour. Most of the studies on online consumer behaviour come from the disciplines of attitude research. (Limayem, Cheung et al. 2004). The concept attitude, understood within a cognitive framework, is also one of the most widely used foundations for understanding the motivation of consumer behaviour in marketing research. However, there has been an increased critique of TRA, TPB and similar theories.

The strongest critique to TRA has been that it does not take into consideration the full range of non-attitudinal personal and situational variables likely to influence the strength of the attitude-behaviour relationship (Brown and Stayman 1992; Olson and Zanna 1993). The TPB try to solve this problem by introducing perceived behavioural control as a predicting variable to intention. But this does not solve the need for looking at other non-attitudinal personal and situational variables that can explain the attitude-behavioural relationship.

So, research on online consumer behaviour has explored the antecedents of intention to shop online, but failed to investigate the factors that affect the actual buying behaviour (Limayem, Cheung et al. 2004). The Behavioural Perspective Model introduced by Gordon R. Foxall (2001) is suggested as a theoretical framework. This framework sees consumer behaviour as determined by the situation, and thus includes one important predicting variable that is lacking in the attitude theories like TRA and TPB. The BPM framework focuses on clear descriptions of consumer behaviour that can be observed, measured, counted, tabulated and analyzed - which subsequently can be used to improve electronic commerce applications.

This paper is structured as follows: First, a more detailed analysis of the attitude theories that dominate research on online buying behaviour today is given. Second, the BPM framework is presented, and a discussion on this model's promises and challenges related to understanding and predicting online consumer behaviour will be given. The final section discusses the theoretical and methodological implications related to the understanding and use of BPM in online consumer behaviour research.

### **Attitude theory: the intentional stance**

Attitude research has had a pervasive impact on the understanding of consumer behaviour in general with the development of a wide range of attitude theories (Lutz 1991). Researchers that assess attitudes do this by asking questions or making inferences from behaviour. For example, if a researcher determines from questioning a consumer that he consistently buy books from Amazon.com, and at the same time recommends this web shop to friends, the researcher is likely to infer that the consumer possesses a positive attitude toward online shopping at Amazon.com. This example illustrates that attitudes are not directly observable, but must be inferred from what consumers say. Or in other words attitude assessment procedures assess the respondent's evaluation of the attitude object. The term is often defined as (Fishbein and Ajzen 1975): "a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object". As seen in this definition the concept *object* has a central place in attitude theories. If we were interested in learning about consumers' attitude toward online shopping our object might include the Internet (technology), payment, security and delivery.

The heart of attitude research has been to specify the composition of an attitude to better understand and predict behaviour. Each of these models that have been developed provides a different perspective on the number of component parts of an attitude and how those parts are arranged or interrelated. The most used model in online consumer behaviour research is, as mentioned in the introduction, the TRA and TPB. These two models will now be described and analysed in relationship to their contribution to understand and predict online shopping behaviour.

### ***Theory of Reasoned Action***

The scope of interest to attitude researchers is voluntary actions, ones under the person's volitional control. The most immediate determinant of such action is, from this perspective, presumably the person's *behavioural intention* – what a consumer intends to do. TRA is a model developed by Martin Fishbein and Icek Ajzen (Fishbein and Ajzen 1975) which proposes that one's intention to perform or not perform a given behaviour is a function of two cognitive variables: (1) one's attitude toward the behaviour in question, and (2) one's subjective norm, which represent one's general perception of how important others desire the performance or non-performance of the behaviour. From this, intentions are influenced both by personal attitudinal judgments (consumers personal evaluation of shopping online) and by social-normative considerations (what consumers think other people think they should do in proportion to shop online). It is important to note that the TRA model is relevant to behaviour that is under the volitional control of the person (Fishbein and Ajzen 1975). The TRA model is expressed as follows:

$$BI = A_B(w_1) + SN(w_2)$$

Here, BI refers to one's behaviour intention;  $A_B$  represents one's attitude toward the behaviour; SN represents one's subjective norm; and  $w_1$  and  $w_2$  represent the weights for each factor. This relationship between the key variables attitude/intention and behaviour is showed in figure 1.

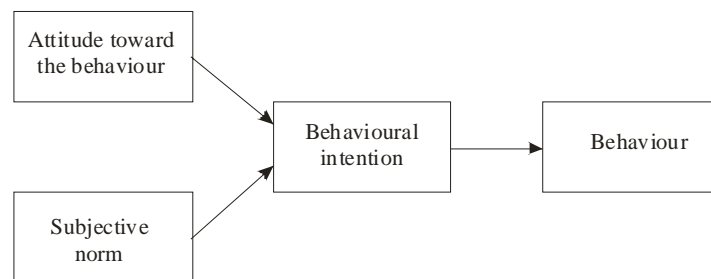


Figure 1: Theory of Reasoned Action

All models that try to explain and predict behaviour have limitations. The TRA model developed by Fishbein has a composition where behaviour may be predicted from measures of behaviour intention only under certain closely specified conditions (Ajzen and Fishbein 1972; Fishbein 1973). This mean that high correlations between intention and behaviour are attainable only when (Foxall 2005): (1) the cognitive measures and measures of behaviour are equally specific; and (2) the period of time which intervenes between the measurement of the behavioural intention and that of the behavioural criterion is very short; and (3) when novel consequences of behaviour or reference group evaluations of the action under investigation do not intervene; and (4) when the behaviour is voluntary and amenable to reason; and (5) when the intention which accurately predicts behaviour is that which immediately precedes the act. These premises reduce the TRA model's ability to predict online consumer behaviour. Restricting the TRA to behaviour that is volitional means it requires only motivation on the part of the individual (Foxall 2005). Online consumer behaviour includes enactment pre-conditions such as resources, skills and cooperation. In conclusion, the TRA model has limitations when researchers shall try to predict online consumer behaviour. And, because of its relation to meta-theory, the TRA model provides imperfect information to those who work with the adaptation of electronic commerce application.

### ***Theory of Planned Behaviour***

The TPB was developed by Icek Ajzen (Ajzen 1985) in an attempt to extend the TRA beyond easily performed voluntary behaviours. Ajzen added a third predicting cognitive variable to intention – perceived behaviour control. This attitude model suggests that perceived behavioural control (PBC) also influences behaviour intention. This is expressed as follows:

$$BI = A_B(w_1) + SN(w_2) + PBC(w_3)$$

The relationship between the key variable attitude/perceived behaviour/intention and behaviour is showed in figure 2.

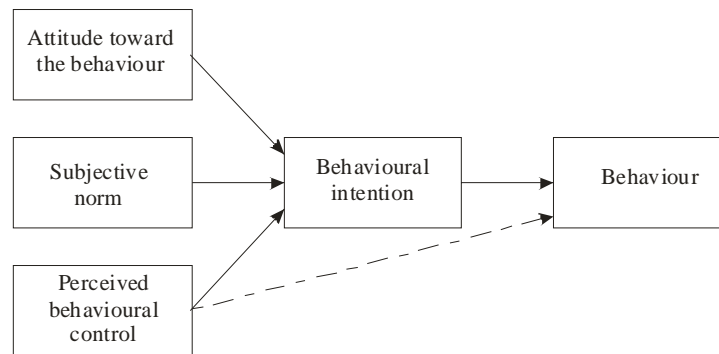


Figure 2: Theory of Planned Behaviour

The argument for introducing perceived behavioural control is that sometimes the obstacle to behavioural performance resides not in negative attitude or subjective norms but rather in a perceived lack of ability to perform the action. A consumer might have a positive attitude toward shopping on the Internet. He may also have a positive subjective norm because most people who are important to him think he should shop on then Internet. But he does not believe that he is able to accomplish the order on the Internet (perceived behaviour), and thus goes to a traditional outlet to buy the desired product. The TPB introduces one new variable that contributes to the understanding of online consumer behaviour. But, like the TRA model, the TPB assumes temporal contiguity between intention and behaviour so that precise situational correspondence is still essential to accurate prediction (Netemeyer, Burton et al. 1991).

Correlational consistency to attitude/intentions and behaviour required tight compatibility of measures of target behaviour and measures of its antecedent cognitive predictors (Ajzen and Fishbein 1977). There has only been proved high correlation when the situational influences govern both the prebehavioral and behavioural variables. This indicates that situational variables are highly significant for the correlation consistency of attitude/intentions and behaviour (Davies, Foxall et al. 2002). As a consequence, situational factors must be included in online consumer research. The BPM model incorporates the situational variables, which attitude theory such as TRA and TPB only implicitly recognized, in such a way that online consumer behaviour can be better understood and predicted.

### **The BPM framework: an alternative stance**

The BPM is based on behavioural psychology that describe the basic operant procedure as a tree-term contingency involving stimulus ( $S^D$ ), response (R) and consequence ( $S^{R/A}$ ) (Catania 1998). Within the tree-term relationship;  $S^D$  is a discriminative stimulus or cue, R is a response, and  $S^{R/A}$  is a reinforcing or punishing stimulus. The reinforcing consequences ( $S^R$ ) are likely to increase the probability of repeated purchase whereas the punishing ( $S^A$ ) have the contrary effect. This sequential process is illustrated as a chain of events as follows:

$$S^D - R - S^{R/A}$$

The  $S^D$  is prebehavioral stimulus that signals the consequences as a result of a specific response. In behavioural psychology the  $S^D$  is described as a stimuli that sets the occasion on which responses have consequences and are said to occasion responses (Catania 1998). A  $S^D$  to go to a specific web-site can be the sign of an URL to a specific Internet shop (for example www.amazon.com) or a banner advertisement on another web-site. The URL or the banner advertisement set the occasion for buying products, and thus signal the consequences of responses. When a person buys a product on the Internet he is reinforced by acquiring the attributes ( $S^R$ ) of the product class and the consequences of consumption. Simultaneously he is punished by the surrender of money ( $S^A$ ), which is depriving him of opportunities to acquire other reinforcers.

The BPM is a consumer behaviour model that is based on the three-term contingency from behavioural psychology. This model was first described in Foundation of Consumer Behaviour Analysis (Foxall 2001) and later, in detail, in Consumer Behaviour Analysis: Critical Perspectives on Business and Management (Foxall 2002). Figure 3 show that the main perspective of the BPM is the consumer situation which exerts a direct influence on the shaping and maintenance of consumer behaviour in specified surroundings.

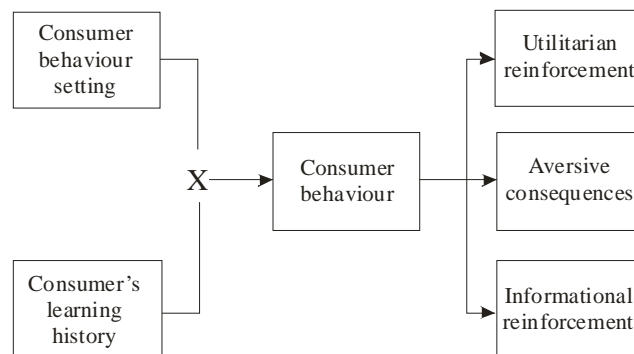


Figure 3: The Behavioural Perspective Model

Behaviour produces consequences, and in a consumer behaviour context the BPM framework defines these consequences as utilitarian reinforcement, informational reinforcement and aversive consequences (Foxall 2001). *Utilitarian reinforcement* is the tangible functional and economic benefit which stems from purchase, ownership and consumption. Shopping on the Internet can offer more utilitarian reinforcement than shopping in traditional stores. When consumers buy music on the Internet they might not have to purchase the whole CD, but rather choose those tracks from the CD that they like. *Informational reinforcement* is a consequence of consumer behaviour that is more likely to involve a lifestyle statement through which the consumer is reinforced by social attention or appreciation. When a consumer uses the internet to purchase stocks and shares, this behaviour may produce social

attention and appreciation within their social network. Economic behaviour includes a reciprocal transfer of rights and is, when it occurs, simultaneously reinforced and punished (Alhadeff 1982). *Aversive consequences* are those consequences of consumer behaviour that reduce the probability of future repetition. One aversive consequence of shopping is the surrender of money, which is depriving the consumer of opportunities to acquire other reinforcers. However, consumers that use Internet may also experience other aversive consequences such as time consuming registration before payment or frustration because the web-site (technology) doesn't work properly.

Shopping online produces consequences which can be utilitarian or/and informational reinforcing and aversive. This process does not occur in a vacuum. Online consumer behavior settings comprise the stimuli that form the social and physical environment. These initially neutral stimuli are transformed into discriminative stimuli that signal the outcomes of a specific behaviour, and become a part of the consumer's learning history. Consumer situation is therefore the intersection of the *consumer behaviour setting* and the *consumer's learning history* (Foxall 2002) as illustrated in Figure 3.

Some researchers argue that the tree-term contingency, which is the theoretical foundation for the BPM framework, only has the capacity to explain uncomplicated behaviour and is not sufficient when complex behaviour, for example online consumer behaviour, shall be explained. Other researchers contend that quite complex behaviour can be accounted for by the three-term contingency. In a process known as *chaining* quite complex behaviour has been proven (Fantino 1977). The process of chaining will now be discussed as it relates to online shopping behaviour.

### ***Online shopping – a chain of responses***

Online shopping can not be analyzed from one single three-term contingency event. Shopping behaviour on the Internet is complex and involves multiple responses. As an example, assume that a consumer who has been exposed to a URL first logs on to the Internet, and then proceeds to the web site. He browses for products and put products in the shopping basket (configure). Then it is time for payment and he goes to the check out site to fill out formalities, and then pays by confirming the order. Each discriminative stimulus not only signals the availability of a further reinforcement contingent upon the performance of a specific behaviour, but also in itself reinforces the preceding response (Fantino 1977). This chain of behaviour is illustrated in figure 4.

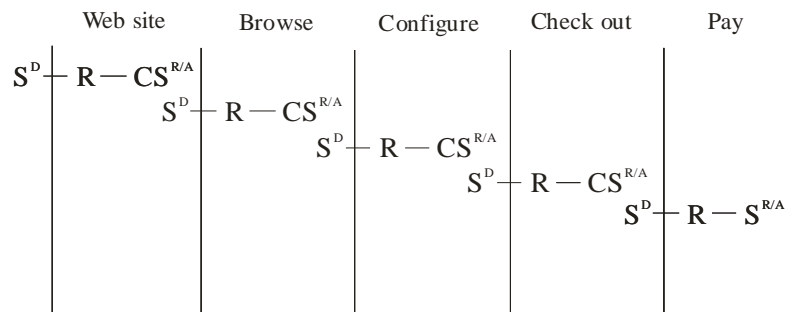


Figure 4: Chain of online shopping behaviour

As showed in figure 4 chains of responses are linked in the same manner as two-link chains. Between each response is a secondary reinforcer which serves as a conditioned stimulus (CS)

and an  $S^D$ : As a CS, it elicits emotions and reinforces the prior response, while also being an  $S^D$  for the next response in the chain (Fantino 1977). The benefit from using chaining as an framework to shape or/and change consumer behaviour in a traditional sales environment has been demonstrated in several research papers (Martinko 1986; McNally and Abernathy 1989). Complex behaviour can therefore be explained as resulting from sequences or chains of three-term contingencies.

Companies with electronic commerce solutions use clickstream techniques to collect information about actual online consumer behaviour. Companies can obtain this raw data from log files that record each click a consumer makes while visiting the site. Clickstream data enable the companies to calculate the conversion rate for a site and to calculate the retention at each stage of the process as visitors move through the site. Researchers (and companies) might then actually better understand and predict online consumer behaviour by using the framework of chaining when analyzing clickstream data. Let us turn our attention to a more detailed theoretical discussion on some of the most common challenges related to understand and predict online consumer behaviour.

### ***Motivation to shop online***

The most commonly researched type of consumer behaviour consists of a chain of several responses that end with the acquisition of a primary reinforcer. This is also the case related to online shopping behaviour. Consumers go through the first stages with secondary reinforcers ( $CS^{R/A}$ ). It is only the last stage (confirm order) that is followed by the primary reinforcer ( $S^{R/A}$ ). If the product can not be downloaded (music, films, news etc.) the primary reinforcer will be delayed in time. Consumers have to wait for the product to be transported to them. This can be one explanation why so many consumers go to check out, but then leave without paying. The challenge lies in the last chain in an online shopping situation signal ( $S^D$ ) in which the consumer is aware of (1) delay in appearance of primary reinforcer ( $S^R$ ) and (2) simultaneously the reduction of money ( $S^A$ ), which is depriving him of opportunities to acquire other reinforcers. But, taking the opposite perspective – a lot of consumers do confirm orders. To explain this we must look at variables in the consumer behaviour setting that influence the consequence of the responses. In other words, we have to pay attention to those antecedents' events which motivate the consumer to confirm orders on Internet.

The term motivation is in behavioural psychology described as *motivating operations* (MO), and are defined by Laraway, Snyckerski et al. (2003) as “stimulus that first alter the effectiveness of reinforcers or punishers (the value altering effect) and second alter the frequency of response classes related to those consequences (behaviour-altering effect)”. Based on the different value-altering effects they distinguish between two main types of MO (Michael 1982; Laraway, Snyckerski et al. 2003): (1) establishing effects (EO) which refer to any events that increase the effectiveness of a given consequence, and (2) abolishing effect (AO) which has the opposite effect – it decreases the effectiveness of a given consequence. From this it is logical to conclude that the optimal consumer behavior setting when confirming order are when EO related to reinforcement (utilitarian and informational) is high, and the AO to aversive consequences is high.

Web designers should arrange the physical setting on the Internet in such a way that the possibility of confirmed orders online is increased. This is not always the situation. Consumers who shop online are usually exposed to the product and its attribute when they browse and configure. But when they go to check out and pay – they are in an environment

where the product and its attribute are visually absent. This way of arranging the online consumer behaviour physical setting may decrease the motivation to confirm orders.

### ***Rule-governed online shopping behaviour***

Contingency-shaped behavior is behavior that has been shaped by its environmental consequences. As an example: a consumer learns to browse on the Internet through trial and success. After using the Internet for some time, the consumer begins to create some rules about Internet usage. Rules are verbally encoded guidelines such as instructions, suggestions, or hints that tell the person how to respond in various situations (Catania 1998). An instruction like: “Go to the Internet for fast and easy product information” is a *self-given rule*, which are words we formulate ourselves to guide our own behavior. Rules generally describe some aspect of the contingencies of reinforcement – the relationship among antecedent stimuli, response and consequences.

However, what consumers do on the Internet is sometimes dependent on what they are told to do. Consumers often follow recommendations from friends, advertisements, instructions on the web site etc. (Zettle and Hayes 1982) define three main functional units of a listener’s rule-governed behavior: pliance, tracking and augmenting. Pliance (taken from the word compliance) is a rule enforced by consequences that the rule giver controls. The rule itself is termed a *ply*. An example of ply from online shopping can be the following statement: “If the information that is given in this check out procedure is wrong, our company reserve the right to cancel the order”. The consequences of not following this rule are enforced by consequences that the company controls. Tracking is a rule whose use is reinforced by the natural consequences of following the rule (without enforcement from the rule giver). The rule itself is termed as *track*. When an online customer follows the statement: “free delivery on 3 or more items” it is defined as tracking. Augmenting is rule-governed behaviour that alters the extent to which some event will function as a consequence. The rule itself is termed as *augmental*. The statement: “shopping on the internet is time saving” is an augmental which sets the behavior under control by the apparent changes in the capacity of the punisher (time of use). It is obvious that augmentals have an important function related to consumers’ motivation (MO).

Consumers are bombarded by more rules than they can follow on the Internet. And consequently consumers learn to disregard most rules they see. Research on rule-governed behavior (Catania 1998) shows that consumers are likely to follow rules when  $S^D$ s are present in the rules and the context indicate that there has been past reinforcement for using rules in similar context.

### **Theoretical and methodological implications**

The intentional stance in consumer psychology is driven from the notion that the intentionality of the individual consumer is a vital clue to behaviour. Consumers perform because they have a positive attitude toward the Internet or shopping on the web. The causes of behaviour are founded within the person. Online shopping behaviour is therefore from this stance most effectively understood and predicted by studying the mental constructs and processes that underlay it.

It is important to see that the BPM framework is shifting focus distinct from the intentional stance that the TRA and TPB represent (Foxall 1998). The understanding of behaviour is not

found in the imputed attitude or intention of the actor, but in the environmental consequences which the behaviour has produced. Online consumer decision making in the BPM framework is not voluntary mental processing but rather rule-governed behaviour which is often private (Foxall 1998). Where deliberation takes place it consists of a review of rules like self-rules generated on the basis of direct learning experience and other-rules provided by the social-environment.

It has been demonstrated that there is correspondence between rules and what has been measured in attitude research (Foxall 1998; Davies, Foxall et al. 2002; Foxall 2004). The TRA explore the respondent's learning history by asking him to identify and evaluate: (1) the utilitarian consequences of behaving in a particular way and referring to this as attitude toward behaviour, (2) the individual's socially determined rule-governed behaviour as subjective norm. The TPB adds to these a measure of how successful the respondent expects to be: this variable delineates personal rule-formation and following but is cognitively construed as perceived behaviour control.

This paper responds to the request from the IS community to look at alternative theoretical frameworks which accounts for more IT related variables (Benbasat and Zmud 2003; Weber 2003). The BPM framework, based on behaviour psychology, offers a perspective on online consumer behaviour which can be integrated with the IT artefacts.

## **Conclusion**

This paper has introduced the BPM framework as an alternative stance to the understanding of online consumer behaviour. The unit of analysis from this stance is to seek the understanding of behaviour in its relationship to its context. The BPM is based on behavioural psychology which describes the basic operant procedure as a tree-term contingency involving pre-behavioural stimulus, response and consequence. From this apparently simple theory quite complex online consumer behaviour can be explained by the concept of chaining. Consumer motivation to confirm online orders can be analyzed from the concept of motivating operation, which are those antecedents in the behaviour setting that influence consequences of responding. Consumers' online behaviour are not only shaped and maintained by the physical environment. Humans are rule-formulating animals, and online consumer behaviour is likely to be guided by self-rules formed through experience and observation. Online consumer behaviour instructed by the rules provided by others is formed through indirect experience like recommendation from friends, advertisement, instruction on the web site etc. Finally, the BPM offers a theoretical stance that sees consumer behaviour also determined by the consumer behaviour setting, and thus includes one important predicting variable that is lacking in attitude theories like TRA and TPB.

## **References**

- Ajzen, I., Ed. (1985). From intentions to actions: A theory of planned behavior. Action control: From cognition to behavior. Berlin, Springer-Verlag.
- Ajzen, I. and M. Fishbein (1972). "Attitudes and normative beliefs as factors influencing behavioral intention." Journal of Personality and Social Psychology **21**: 1-9.
- Ajzen, I. and M. Fishbein (1977). "Attitude-behavior relations: A theoretical analysis and review of empirical research." Psychological Bulletin **84**: 888-918.

- Alhadeff, D. A. (1982). Microeconomics and Human Behavior: Toward a New Synthesis of Economics and Psychology. Berkely, University of California Press.
- Benbasat, I. and R. W. Zmud (2003). "The identity crisis within the IS discipline: Defining and communicating the discipline's core properties." MIS Quarterly **27**(2): 183-194.
- Brown, S. P. and D. M. Stayman (1992). "Antecedents and consequences of attitude toward the ad: a meta-analysis." Journal of Consumer Research **19**: 34-51.
- Catania, C. A. (1998). Learning. New jersey, Prentice Hall.
- Davies, J. D., G. R. Foxall, et al. (2002). "Beyond the intention - behaviour mythology: an integrated model of recycling behaviour." Marketing theory **2**: 29-113.
- Fantino, E., Ed. (1977). Conditioned reinforcement: Choice and information. Handbook of Operant Behavior. New York, Prentice Hall.
- Fishbein, M., Ed. (1973). The prediction of behavior from attitudinal variables. Advances in Communications Research. New York, Harper & Row.
- Fishbein, M. and I. Ajzen (1975). Belief, Attitude, Intention and Behavior. Reading, Addison-Wesley.
- Foxall, G. R. (1998). "Intention versus context in consumer psychology." Journal of Marketing Management **14**: 29-62.
- Foxall, G. R. (2001). "Foundations of consumer behaviour analysis." Marketing theory **1**(2): 165-199.
- Foxall, G. R. (2002). Consumer Behaviour Analysis: Critical Perspectives on Business and Management, Routledge.
- Foxall, G. R. (2002). "Marketing's attitude problem - and how to solve it." Journal of Customer Behaviour **1**: 19-48.
- Foxall, G. R. (2004). Context and Cognition: Interpreting Complex Behavior. Reno, Context Press.
- Foxall, G. R. (2005). Understanding Consumer Choice. London, Palgrave Macmillan.
- Laraway, S., S. Snyderski, et al. (2003). "Motivating operations and terms to describe them: some further refinements." Journal of Applied behavior analysis **36**(3): 407-414.
- Limayem, M., C. Cheung, et al. (2004). Online consumer behavior: what we know and what we need to know. European & Mediterranean Conference on Information Systems, Tunis Tunisia.
- Lutz, R. J., Ed. (1991). The role of attitude theory in marketing. Perspectives in Consumer Behavior. Upper Saddle River, NJ, Prentice Hall.

- Martinko, M. J. (1986). "An O.B. Mod. Analysis of Consumer Behavior." Journal of Organizational Behavior Management **8**(1): 19-43.
- McNally, K. A. and W. B. Abernathy (1989). "Effects of monetary incentives on customer behavior: Use of automatic teller machines (AMTs) by low frequency users." Journal of Organizational Behavior Management **10**(1): 79-91.
- Michael, J. (1982). "Distinguishing between discriminative and motivational functions of stimuli." Journal of the experimental analysis of behavior **37**(1): 149-155.
- Netemeyer, R. G., S. Burton, et al. (1991). "A comparison of two models for the prediction of volitional and goal-directed behaviors: a confirmatory analysis approach." Social Psychology Quarterly **54**: 87-100.
- Olson, J. M. and M. P. Zanna (1993). "Attitudes and attitude change." Annual Review of Psychology **44**: 117-54.
- Tuck, M. (1976). How do we choose? London, Methuen.
- Turban, E., D. King, et al. (2004). Electronic Commerce: A managerial perspective. New Jersey, Pearson Prentice Hall.
- Weber, R. (2003). "Still desperately seeking the IT artefact." MIS Quarterly **27**(2): iii-xi.
- Zettle, R. D. and S. C. Hayes, Eds. (1982). Rule governed behavior: A potential theoretical framework for cognitive-behavior therapy. Advances in Cognitive-Behavioral Research and Therapy. New York, Academic Press.