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Consumer decision-making models within the discipline of consumer science: A critical approach

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KEYWORDS

Consumer decision-making; consumer decision making; decision-making models; processes; models of consumer decision-making; models of consumer decision-making; consumer research; consumer competitiveness; consumer behaviour; consumer behaviour

ABSTRACT

Consumer decision-making models are generally used in consumer behaviour research for the purpose of conceptualizing and to structure research. Some of the best-known models were developed in the 1960's and 1970's. Labeled as "grand models" of consumer decision-making, they visually reflect the consumer decision process in terms of the interrelationships of concepts and flow of activities as understood within the limited theoretical background that inspired model building at the time.

In the 1980's, theorists began to question the rational approach to consumer decision-making and suggested that consumer decision-making processes do not necessarily reflect what actually happens in practice. A general concern is that these models are used without careful pre-meditation of the nature, purpose and alternative research perspectives that might better support specific studies.

As an alternative to consumer decision models, researchers have begun to explore characteristics that often coincide in the typical, typical, or unexpected of the common (ground) activities that



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Scripts as an alternative to consumer decision models per definition have certain structural characteristics that offer potential in this regard: scripts are composed of the common (generic) actions that

represent a prototypical event and contain a coherent sequence of events expected by an individual in a particular context, involving him either as participant or as an observer. Scripts might also, due to the fact that they are context specific, based on real life experiences and only contain the generic details of an event, provide more realistic avenues for describing consumer decision-making.

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Consumer decision-making models within the discipline of consumer science: a critical approach

Alet C Erasmus, Elizabeth Boshoff and GG Rousseau

OPSOMMING

Verbruikersbesluitnemingsmodelle word algemeen in verbruikersgedragnavorsing gebruik om die navorsing te struktureer en te konseptualiseer. Verskeie van die tradisionele modelle – wat in die laaste tye en sewentigerjare saamgestel is – is in handboeke beskikbaar wat terselfdertyd die teorie ter ondersteuning bied en die stappe van die verbruikersbesluitnemingsproses definieer en bespreek. Verbruikersbesluitneming word meestal in terme van vyf stadia voorgehou. Die modelle verskil grootliks ten opsigte van die klem en konteks sowel as detail wat ingesluit word.

In die tagtigerjare het navorsers begin besef dat die tradisionele modelle van verbruikersbesluitneming nie noodwendig die korrekte beeld van die verbruikersbesluitnemingsproses weergee nie. Verskeie navorsers het resultate van studies gepubliseer om aan te toon dat alternatiewe tot die tradisionele verbruikersbesluitnemingsmodelle gevind moes word. Feitlik sonder uitsondering toon besware 'n oorbeklemtoning van eksterne en omgewingsfaktore op verbruikersbesluitneming sowel as 'n wanvoorstelling dat aktiewe beplanning en rasionele denke komplekse besluitneming rig. Verbruikersbesluitneming het oor jare baie meer kompleks geraak as gevolg van 'n groter verskeidenheid produkte wat beskikbaar is, ontwikkeling op die gebied van tegnologie, wêreldinvloede, groter bedingingsmag van werkende vroue wat ook op besluitnemingstrategieë in gesinsverband 'n invloed het. Veralgemening van verbruikersbesluitnemingsprosesse in terme daarvan om tradisionele besluitnemingsmodelle te gebruik om bepaalde prosesse voor te stel, is nie meer haalbaar nie.

Die positivisme wat algemeen as perspektief vir die beskouing van verbruikersbesluitneming beskou is (en nog steeds deur sommige beskou word) blyk nie al die moontlikhede te bied om die fenomeen te beskryf nie. Sterk steun vir die implimentering van subjektivistiese benadering en veral kwalitatiewe navorsingstegnieke in navorsing waar die verbruiker toegelaat word om gedagtes en idees spontaan te ontvou, word bepleit. In ooreenstemming met 'n voorstel van Sheth (1981) word navorsers op die gebied van verbruikersgedrag in die verbruikerswetenskap gemotiveer om kreatief te dink binne minder rigiede teoretiese raamwerke sodat daar deur middel van navorsingsmetodes en tegnieke wat groter ruimte vir die ontdek van die onverwagte, meer omtrent verbruikgedrag aan die lig kan kom. Indien bestaande teorie van verbruikersgedrag gekombineer word met produkspesifieke (byvoorbeeld behuising, kleding, huishoudelike toerusting) teorie kan nuwe insigte bekom word wat waardevol en rigtinggewend kan wees in verbru-

INTRODUCTION

Consumer behaviour¹ and consumer decision-making² have become prominent research topics in the various fields of consumer science in recent years. Consumer science includes the former discipline of home economics and refers to a discipline that evolves around consumer behaviour and decision making concerning foods and nutrition, clothing and textiles, housing and interior merchandise in everyday living in order to meet basic and higher order needs for physical, psychological, socio-psychological and financial satisfaction in a complex micro and macro environment. Of specific importance is that buying and consumer decision-making are complicated as a result of external influences that have to be handled within an internal frame of reference that has come about through consumer socialization (that may be/have been restricted). Consumer behaviour within the discipline of consumer science focuses on *consumption behaviour*³ where the humane aspect of decision making and purchasing is of major importance as opposed to *buyer behaviour* - the domain of the marketing and business professionals who wish to understand buyer behaviour (Schiffman & Kanuk, 2000:5).

Consumer decision-making models are widely used in consumer behaviour research and study areas to structure theory and research. In a discussion of the consumer decision-making process, Engel, Blackwell & Miniard (1995:143) state that "a model is nothing

¹ Consumer behaviour: those actions directly involved in obtaining, consuming, and disposing of products and services, including the decision processes that precede and follow these actions (Engel et al, 1995:G3)

² Consumer decision-making: the behaviour patterns of consumers, that precede, determine and follow on the decision process for the acquisition of need satisfying products, ideas or services (Du Plessis et al, 1991:11).

³ Consumption behaviour: the style and process of consuming and possessing, collecting and disposing of consumer products and services including the resultant change of feelings, moods and attitudes toward the products and services (Schiffman & Kanuk, 2000:G3).

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more than a replica of the phenomena it is designed to present. It specifies the building blocks (variables) and the ways in which they are interrelated." Models are also described as flow charts of behavioural processes (Du Plessis, Rousseau & Blem, 1991:18).

Advantages offered by models include the possibility to grasp visually what happens as variables and circumstances change, that models provide conceptual frames of reference that logically indicate the interrelationship of variables for research purposes, that models provide the possibility to understand different consumer decision processes and marketing strategies and that models play an important part in the establishment of theory (Engel et al, 1995:143; Du Plessis et al, 1991:18). Walters (1978:43) even proclaimed consumer decision-making models to "specify exact cause and effect that relate to consumer behaviour".

TRADITIONAL MODELS OF CONSUMER DECISION-MAKING

Background

Some of the best-known consumer decision-making models were developed in the 1960's and 1970's during a time characterized by limited theory on consumer behaviour and when theories from other disciplines were used. Until then, marketers rather than academics undertook research. This was all part of a developing discipline of consumer behaviour. Howard developed the first consumer decision-model in 1963 (Du Plessis et al, 1991:10). Others include the Nicotia-model (1966), Howard - Sheth- (1969), Engel, Kollat & Blackwell- (1968), Andreason- (1965), Hansen- (1972) and Markin-models (1968/1974). A concern was that consumer behaviour research did not grow from a pure theoretical basis and it is within this context that several theoretical models of consumer decision-making were developed (Du Plessis et al, 1991:9). These models, labelled the "grand models" of consumer decision-making (Kassarjian, 1982:20), tend to portray the process of proceeding through a major purchase decision⁴ as a logical problem solving approach (Cherian & Harris, 1990:747). Furthermore, consumer decision-making is depicted as multi-staged and complex with several factors triggering problem recognition before initiating a sequence of actions to reach an outcome of satisfaction or dissatisfaction (Harrel, 1990:740; Cox, Granbois & Summers, 1983:394). Differences between models lie primarily in their emphasis on particular variables and the manner of presentation (Du Plessis et al, 1991:32; Walters, 1978:42). The popularity of model building seemed to decrease after 1978 – especially in the case of comprehensive models (Van der Walt in Du Plessis et al, 1991:39). The consumer decision-

models that are still used today thus reflect the consumer decision process in terms of the interrelationship of concepts and flow of activities as understood within the limited theoretical background that inspired model building at the time.

Most of the consumer behaviour textbooks used as sources of consumer behaviour models for study and research purposes, refer to the elements (Cox et al, 1983:394; Harrel, 1990:740) of the consumer decision process in terms of the traditional five step classification, i.e. the cognitive decision sequence of *problem recognition / pre-search stage, information search, alternative evaluation, choice, outcome evaluation* (Schiffman & Kanuk, 1994:566-580; Solomon, 1996:268; Du Plessis et al, 1991:27; Foxall, 1983:75). Some prefer to add one or more additional stages to place importance on certain phenomena/activities such as the inclusion of *blocking mechanisms, the disposal of the unconsumed product or its remains* (Du Plessis & Rousseau, 1999:83; Engel et al, 1995:142, 143; Du Plessis, et al, 1991:38).

The classification in terms of various stages of consumer decision-making is typical of the rational approach to consumer decision-making (Punj & Srinivasan, 1992:493-495; D'Astous, Bensouda & Guindon, 1989:433). A rational approach to consumer decision-making refers to the careful weighing and evaluation of utilization or functional product attributes to arrive at a satisfactory decision (Solomon, 1996:268; Engel et al, 1995:G12). Rational goals are based on economic or objective criteria such as price, size and/or capacity (Schiffman & Kanuk, 2000:G11).

Engel et al (1995:4), in their discussion of "what consumer behavior is all about," identify the dominant research perspective in consumer behaviour as *logical positivism*. Positivism implies a research approach in which rigorous empirical techniques are used to discover generalized explanations and laws (Engel et al, 1995:G11). It is within this perspective that the "grand models" of consumer decision-making have been produced. When traditional models were later revised (1982 Engel, Kollat & Blackwell-model, versus the 1978 model), more emphasis was placed on cognitive aspects of buying behaviour than before. These were called the contemporary models, but although they include aspects of mental activity, it is still difficult to ascertain whether these models are accurate and whether they have predictive value (Du Plessis et al, 1991:18, 19).

CONSUMER DECISION-MAKING MODELS CRITICIZED

Objections against the indiscriminate use of consumer decision-making models have been voiced since their introduction. Apart from the limited theoretical background within which traditional consumer decision-making models were developed and revised, the different forms of criticism can broadly be categorized in terms of: an assumption of rational consumer deci-

⁴ Purchase decision: the process of weighing the consequences of product alternatives to come to a final product decision.

sion-making behaviour; a generalization of the decision-making process; concern about the detail included in consumer decision-making models as well as limitations as a result of a positivistic approach to the development of consumer decision-making models.

Rational consumer decision-making criticized

In the 1980's, theorists began to question the rational approach to consumer decision-making because studies showed that for many products, consumers spend very little time or do not even engage in some of the sequential activities suggested as being important during consumer-decision making. It was found (as discussed by Bozinoff, 1982:481 based on work by Lachman et al, 1979) that consumers are frequently engaged in *non-conscious behaviour* during consumer decision-making. This implies that consumer decision models in fact attempt to explain highly subconscious matter in a consciously-oriented information paradigm.

Actual consumer decision-making processes might also, in some cases, appear to be haphazard and disorderly when in fact, they are functional and highly adaptive, although opportunistic (Hayes-Roth, 1982: 132). An *opportunistic approach* does not coincide with structured and rigid traditional decision-making models. Some researchers concluded that many consumers undertake little or no prepurchase information-search and undertake limited planning prior to entering retail stores (Solomon, 1996:269; D' Astous et al, 1989:433). It became clear that consumers possess and implement a repertoire of consumer decision-making strategies depending on the product, situation, context and previous experience (Solomon, 1996: 269). Some researchers even added that consumers do not typically apply analytical decision rules to optimize decisions but relied on heuristics that would lead to satisfying decisions instead (e.g. an "acceptable" price or "trusted" brand name) (Solomon, 1996:287).

The so-called "rational" consumer became the subject for several critical analyses which postulated that consumers engage in both *cognitive* and *emotional* information processing prior to a purchase (Schiffman & Kanuk, 2000:461; Zajonc & Markus in Lofman, 1991:729; D' Astous et al, 1989:433). Cognitive information processing refers to active, effortful planning and goal directed consumer behaviour that involves meditated intellectual activity, while emotional processing refers to the evaluation of product alternatives within more abstract parameters.

Ratchford and Vaughn (1989:298) suggested that ego gratification, social acceptance as well as sensory desires might imply different decision-making activities to those traditionally accepted and reflected in consumer decision-making models. Their concern was that one could easily, from the design of traditional consumer decision-making models, overemphasize the role and importance of external factors during consumer decision-making while neglecting or minimizing emotional aspects.

Bettman (1993:8) accentuates that an understanding of consumers' decision-making behaviour not only has to focus on what products *do* (functional and performance attributes), but also has to consider what products *mean* to consumers. Driven by emotional needs/concerns, consumers are limited in the options they are willing to consider during the decision-making process and consequently adapt the decision-making strategy (Schiffman & Kanuk, 2000:461; Bettman, 1993:8).

Schiffman and Kanuk (2000:439, 440) describe a rational consumer decision as one where the consumer is aware of all the product alternatives, where the consumer has the capability to correctly rank product alternatives in terms of benefits and disadvantages and is able to identify the best alternative. Arguments against rational consumer behaviour include the fact that consumers operate in an imperfect world, that they possess limited knowledge and skills and that certain values might dominate their goals and decisions. Rational consumer behaviour thus seems too idealistic and simplistic.

A generalization of the consumer decision-making process

Consumer decision-making models provide broad, organized structures that reflect the basic process of consumer decision-making from certain viewpoints and within certain contexts (Walters, 1978:42). These models are often used to structure and interpret consumer behaviour research - even for product specific research. This inevitably means that the research approach, when implementing a specific decision-making model, has to coincide with certain assumptions made by the original authors. Generalizing the decision-making process to such an extent for any consumer product might imply a biased view of, and approach to, the consumer decision-making process right from the start (Burns & Gentry, 1990:522).

Sirgy (1983:16-18), studying the progress of consumer behaviour research within the theory of social cognition, criticized the traditional interpretation of consumer behaviour and proposed a *level of analysis dimension*: classifying some consumer decision processes at a *microlevel* (e.g. based purely on sensation, perception) some at the *micro-macrolevel* (including the five steps of decision-making, namely problem recognition, information search, alternative evaluation, outcome evaluation) and others at a *macrolevel* (referring to repeat purchase behaviour and diffusion of innovation). Sirgy suggested a categorization of consumer decisions for discussion and research purposes rather than a generalization of the decision-making process over the spectrum.

D' Astous et al (1989:433, 434) carried on with the work of Hoyer (1984) who concluded that consumer decision-making should be viewed considering the relevant *dimensions* of a purchase, i.e. *frequency of purchase* and *importance of the purchase*. Although it is not a hard-and-fast rule, it is generally accepted that

the more important a product, the more complex the decision-making process, for example, when higher social, personal and financial risks are implicated, consumers usually engage in external information search and a more deliberative decision process (Du Plessis & Rousseau, 1999:94-94; Du Plessis et al, 1991:27; Assael, 1989:31, 534). Consumers therefore devote more cognitive effort to the purchase of a product that is considered to be important.

Consumer decision-making models are also criticized as being somewhat *idealized* (Cox et al, 1983:394). Because extraordinary short planning periods for the purchasing of complex products are reported in some instances, a need for research to bring about a closer fit between theory and practice is suggested. Consumer decision-making models – due to their complexity and the detail included – give the impression that extended buying behaviour is the norm.

Within the constructivist framework it is argued that consumer attitudes and preferences – based upon previous experiences – are not *revealed*, but *elicited* during decision-making. Consumer goals are often imprecise – especially in situations of less frequent purchases – and are in fact constructed in a given situation within the boundaries of personal experiences. The assumption made in hierarchical models of consumer decision-making, namely that the decision to choose is independent of which alternative to choose, and that the decision-making process necessarily proceeds through the various stages to come to a final decision, may not always be valid. Consumers often decide to choose or not to choose depending on the existing situation (Dhar, 1992:735-737). This implies a more definite impact of *in store search activities* during consumer decision-making rather than preparedness before entering the store. Traditional consumer decision-making models do not portray this possibility clearly.

Traditional models of consumer decision-making assume that the decision-making process occurs in a serial or sequential fashion (Martin & Kiecker, 1990:443). The English logician Alan Turing introduced the first of these in 1936. The basic assumption of most of these serial processing models, as delineated by Newell and Simon's theory of problem solving, requires that only one information process occurs at a time (Martin & Kiecker, 1990:443). New models in the field of cognitive science depict information processing in a more *parallel* way to make provision for the fact that some stages of the decision-making process occur simultaneously. All traditional consumer decision-making models are of serial nature and since model building has declined after 1978 (Van der Walt, 1978 in Du Plessis et al, 1991:39), one may well wonder whether further research in this regard should not be pursued.

In a commentary on new theoretical perspectives in consumer behaviour, Stewart (1990:751-753) argues that although a lot has been done in the field of consumer decision-making, the focus has only been on a

narrow range of phenomena. He proposes a simple model of consumer decision-making and emphasizes that a general assumption, namely that the end point of the consumer decision is the *purchase*, may be overly simplistic. He provides an alternative model with no obvious beginning or ending. Stewart recommends studies where the starting point of the decision-making process is deliberately changed (for example confronting consumers with different situations, such as entering the store) and to explore what actually happens *before* and *after* that specific situation. He further states that consumers often do not know the reasons for their actions and behaviour because decisions become automated. He concludes by stating that much has still to be learnt about consumer decision-making.

Comments on the detail included in consumer decision-models

Olshavsky and Granbois (1979:93) are of the opinion that "the most pervasive and influential assumption in consumer behavior research is that purchases are preceded by a decision process". These consumer behaviouralists asserted that information processing was often performed with *previously acquired* and *stored information*. This implies that consumers probably proceed through the decision-making process much quicker than is suggested/proposed by traditional consumer decision-making models (John & Whitney, 1982:75). Some researchers are therefore of the opinion that consumer decision-making models often complicate a situation that is fairly straightforward. This argument supports the fact that consumer decision-making models tend to generalize conditions that are specialized, product and situation specific. Although the Engel Blackwell-model that was designed in 1982 (after the original Engel, Kollat & Blackwell-model of 1968) (Du Plessis et al, 1991:25) approaches decision-making in terms of high and low involvement, it still seems very detailed and complex. Little has changed since the introduction of these models in the early years to accommodate the fore-mentioned arguments.

Srinivasan's view (1993:290) seems to contradict the previous arguments when he states that consumers may, in the course of the decision-making process, be educated and inspired to upgrade their decision-making behaviour through implementing extensive information search. Unfortunately *too much* and *too difficult* information – due to an information overload – often has the opposite effect. The information may then be rejected because it becomes a threat to a consumer's self-concept and confidence. The generation of information could also be very time-consuming and information search might even have financial implications. Consumers might find it less threatening, easier, quicker and cheaper to rely/draw upon a prior information base. In Srinivasan's view, even extensive product search might not always be as elaborate as is suggested in traditional consumer decision models.

Consumers' choice processes vary according to the *type of product* involved, the *timing* and the *people* involved (Burns & Gentry, 1990:520). No one consumer decision-making model could fully reflect all purchase decisions or all complex consumer decisions. Using consumer decision-making models to discuss or interpret consumer decision-making in general, is therefore an oversimplification of the true situation. Although Walters (1978:42) emphasizes that consumer decision-making models are an oversimplification of the reality, traditional consumer decision-making models - as a result of the detail included - might still be perceived as complex and elaborate to the inexperienced researcher and might give the impression that they have been designed to accommodate most aspects of decision-making.

Other concerns mentioned by Harrel (1990:739, 740), is that the multi-attribute models so frequently used to study and explain consumer decision-making, are founded on the assumption that attributes are important and that many of these models have a strong or even *overemphasis on brand choice* (e.g. the Howard Sheth-model as well as the Engel, Kollat & Blackwell-model) (Sheth & Garrett in Harrel, 1990:739). Although brand decision-making represents a fair amount of deliberation during consumer decision-making, it does not represent the whole consumer decision-making process (Harrel, 1990:739).

Presumed decision-making strategies

In real world situations consumers are often faced with incomplete information and in most consumer decision situations, explicit, well-defined probabilities rarely exist and/or are difficult to formulate. This makes elaborate, rational decision-making as suggested by traditional consumer decision-making models almost impossible (Burke, 1990:250). Under such less than ideal conditions, *decision shortcuts* become the alternative. It is also suggested that even under ideal conditions, consumers actually "gamble" product alternatives as if they are forming statistical expectations based on probability-weighted outcomes of gambles which imply the use of a compensatory choice process. Much of the descriptive research on how consumers make decisions under uncertainty shows that consumers are highly concerned with negative information or losses. Consumers seem to think in terms of losses and gains relative to some neutral point and presume that losses tend to be stronger than gains. As a result, consumers eventually opt for the alternative with the smallest potential loss. This is a non-compensatory strategy that only focuses on losses and might be ascribed to consumers' inability to consider concepts/features of importance that would result in a satisfactory outcome (Hansen, 1992:175). Such decision-making behaviour deviates from the route of rational decision-making and cannot be described within a traditional consumer decision-making model.

Sharing the same views as Chhabra and Olshavsky (1986:12) who reported that *alternative choice rules*

have been uncovered by researchers and that the evaluation of products is done holistically, based on preferences retrieved from memory, Burke (1990:250) recognizes the possibility of the use of *alternative decision-making strategies* (to those suggested in detailed consumer decision-making models) in situations where consumers are confronted with a lack of information. According to Burke, "missing information" forces consumers to opt for an alternative approach to consumer decision-making. This is probable in the case of complex decision-making that requires higher levels of understanding (as would be the case with technologically complex products) and where products are purchased less frequently so that consumers lack the relevant experience to proceed through the decision-making process as is portrayed in traditional models. When confused or overwhelmed, consumers tend to take alternative decision-making routes (Burke, 1990:251; Solomon, 1996:297).

In Chhabra and Olshavsky's opinion (1986:12), a consumer's retrieval of experience from memory strongly refers to so-called *scripts* and previous experience in decision-making activities. It is further proposed that consumers can even "decide not to decide", thus subcontracting a choice to another person such as the spouse. Alternatively, hybrid strategies could be used where consumers combine personal information with recommendations from sources such as friends. All these possibilities are difficult to detect from consumer decision-making models.

Bettman (1993:8) states that two major goals of decision-makers are to *make a good decision* and to *conserve cognitive effort*. Consumers generally trade-off the accuracy a given strategy might attain in a particular choice environment and the cognitive efforts required and as a result choose a strategy that represents a reasonable accuracy/effort trade-off for that task. This is a *constructive view* of choice where individuals change their processing to exploit what they have learnt (Bettman, 1993:8). Consumers use different decision-making strategies in different situations and this is not reflected in traditional consumer decision-making models.

Logical positivism used as theoretical approach to develop traditional consumer decision-making models. Traditional models of consumer decision-making predominantly reflect the philosophy of classical economics (with the emphasis on ways and mechanisms to influence consumers) with evidence that the economic rationale has been enriched with especially psychological rationales (especially in the contemporary decision-making models) (Du Plessis et al, 1991:5; Firat, 1985:3). The theoretical approach, however, remains one of logical positivism.

In consumer decision-making models, predictions of consumer behaviour to help business best exploit and gain from trends in these behaviours, gain precedence over the understanding and explanation of consumer decision behaviour. Traditional models reflect a technological-managerial orientation with the em-

phasis on influencing, controlling and managing certain phenomena (Firat, 1985:4). From the way these models have been developed, they have little concern about *why* certain actions occur despite a proclamation in this regard (as reported in Engel et al, 1995:143; Walters, 1978:42).

Both the disciplines of marketing and consumer behaviour have tended to investigate *buyer* behaviour rather than *consumption* behaviour. Apart from the fact that a study of buyer behaviour is of particular importance in business and marketing, a study of buyer behaviour requires more easily applicable and comprehensible measurements and scales. Engel, Kollat and Blackwell as well as Nicosia have admitted this (Firat, 1985:5). A study of *consumption* behaviour on the other hand may contribute to suggestions for better satisfaction of consumer needs – an aspect that is of major concern to consumer scientists, while *buyer* behaviour is more conducive to a marketing approach.

Concluding remark

Almost two decades ago Firat (1985:5) pointed out that traditional consumer decision-making models and theories were developed within certain contexts, time frames and social situations. He explicitly warned that when the same models were applied in other contexts and with other product categories, they become forced and cause imbalances. Although consumer behaviour theory has since grown considerably, the popularity of model building has decreased after 1978 (Du Plessis et al, 1991:39) – almost as if the initial efforts are generally being accepted as “acceptable / the ultimate/ flawless”. Continued research is proposed to address concerns to eventually gain an improved understanding of the consumer decision-making process. Within the discipline of consumer science, this would provide more focused guidelines for efforts aimed at educating, assisting and facilitating consumers.

IMPLICATIONS OF CRITICISM FOR CONSUMER DECISION-MAKING RESEARCH

Introduction

Coinciding with Sheth's proposals for future research within the discipline of consumer behaviour (Sheth, 1981:667), arguments in favour of a reconsideration of a rational approach to consumer decision-making have been summarized above. Consumer behaviour as a scientific discipline was originally closely tied to the marketing concept (Schiffman & Kanuk, 2000:6; Du Plessis et al, 1991:4; Sirgy, 1983:8). Sheth's ideal – later supported by Olson (1982:v) as well as Harrel (1990:737) – was that researchers in the field of consumer behaviour should ultimately attempt to contribute to concept formation and theory within the discipline itself, rather than to blindly borrow from disciplines such as marketing or social psychology. They also proposed that researchers explore alternatives to the logical positivistic research paradigm so that other theories and conceptual frameworks could be used

instead of reliance upon traditional consumer decision-making models. This is in contrast with the view of Engel et al (1995:4, G11) who still believe the dominant research perspective in consumer behaviour to be *logical positivism*.

Suggestions for research based on the criticism of traditional consumer decision-making models

Reconsidering a rational approach to consumer decision-making

Many of the objections against traditional consumer decision-making models refer to the fact that consumers do not necessarily embark upon extensive, active, cognitive laden, realistic and goal directed decision-making behaviour when purchasing complex, high-risk consumer products (Lofman, 1991:729). Consumer decision-making models should be more representative of what happens in real life situations without building on preconceived assumptions of what happens during the decision-making process and what is (supposed to be) important. Rassuli and Harrel (1990:737) *inter alia* suggest allowance for non-rational consumer behaviour and warn against the assumption that product attributes (functional aspects) as well as external factors are considered important in the decision outcome.

Scripts (event schemata) as cognitive structures in memory that have been stored through experience, have been found to be used by individuals in situational context to automatically direct behaviour (at any stage) when activated (Sutherland, 1995:413; Stratton & Hayes, 1993:173; Whitney & John, 1983:662; Bozinoff, 1982:481). The particular usefulness of a script is that a consumer primarily wants to conserve effort in buying behaviour and a script enables an individual to act in stead of relearning the steps of appropriate buying behaviour with every purchase (Martin, 1991: 225). Turning to consumers who have experienced purchasing situations and have them share their experiences as well as including qualitative research techniques to prompt them to recall their decision-making activities might provide valuable information on consumer decision-making within the context of consumer science. Such an approach will simultaneously conform to proposals made by researchers such as Bettman (1993:7,8), Lofman (1991:729), D'Astous et al (1989:433-435, 436), Bozinoff (1982:481), Sheth (1981:667-668), and others.

Context and product specific consumer decisions

Rather than generalizing complex consumer decision-making, it is suggested that a study of consumer decision-making behaviour should be *context specific* and *product specific* to provide new insights and to contribute to theory building in the domain of consumer science. As early as 1956, Koch concluded that consumer behaviour might either be extrinsically or intrinsically motivated and that the objective usefulness of a product only partially explains a specific purchase (Lofman, 1991:729). Ahtola (1984) and Hirschman & Holbrook (1982) (in Lofman, 1991:730; Hudson & Murray, 1986:34) emphasized that emotional desire

often overrides utilitarian motives even for highly functional commodities such as household appliances.

Scripts as an alternative to consumer decision models have certain structural characteristics that offer potential in this regard (Puto, 1985:404).

Simplifying consumer decision-models Consumers often have to cope with complex, high-risk decisions that involve a sizable outlay of money, within a short period of time and without extensive information seeking. Traditional decision-making models imply the opposite (Ozanne, 1988:574). It is therefore suggested that a subjectivist approach be used to focus on *consumption* behaviour rather than *purchase- / decision-making- / buyer* behaviour (Holbrook & Hirschman, 1982 in Lofman, 1991:730) (Hudson & Murray, 1986:345) in order to accommodate the influence of emotional and non-rational aspects on consumer behaviour.

One of the prominent characteristics of a script is that it contains only the generic details of an event and does not include details of an event (Whitney & John, 1983:662; Abelson, 1981:723). This could result in concept formation and theory building specifically within the domain of consumer behaviour and consumer science while at the same time reducing the possibility of too much and irrelevant detail.

Allowing for alternative decision-making strategies Traditional consumer decision-making models are based on the premise that for complex, high-risk products, extensive decision-making takes place. Various researchers have reported quite the opposite. Reasons given, *inter alia*, include situations where information is either incomplete (Burke, 1990: 250, 251) or confusing because it is irrelevant, too difficult, or there is too much information to interpret (Hansen, 1992:175). It has also been found that consumers follow alternative decision-making strategies to conserve cognitive effort (Bettman, 1993:8, 10). Chhabra and Olshavsky (1986:12-13, 16) attributed this to pre-conceived scripts in memory that direct the decision-making experience, resulting in proceeding much faster through the decision-making process.

The suggestion that a script is elicited from memory when an individual is confronted with a specific decision-making experience and that the individual then reacts on previous experiences captured in memory, might provide more realistic avenues for describing consumer decision-making (Abelson, 1981:723).

Implementing an alternative theoretical approach A positivistic tradition presumes consumers to be passive entities who respond to the push and pull of past impressed forces and current situational stimuli ($S \rightarrow R$; $S \rightarrow O \rightarrow R$)⁵ with a causal type of explanation for actions (Schiffman & Kanuk, 2000:462). A positivistic approach does not allow for intentional action mediated by meaning, deliberation of consequences of

various alternatives and formation of intentions (Du Plessis et al, 1991:21; O' Shaughnessy, 1985:305). Theorists began to question the assumption of the rational consumer in the early 1980's and postulated that consumers engage in both cognitive and emotional processing during consumer decision-making (Zajonc & Markus, 1982 in Lofman, 1991:729). The revised Engel Kollat Blackwell-model is an example of an attempt to include this phenomenon (Du Plessis et al, 1991:25). The hedonic consumption paradigm was suggested as an alternative for the study of consumer behaviour. This is based on psychological theories and is more concerned with those aspects of consumption that relate to the multisensory images, fantasies and emotive aspects of product usage (Lofman, 1991:729).

Due to the abundance of work done on rational consumer decision-making models, more research that acknowledges behaviour that may have underlying cognitive structure is suggested (Sheth, 1981:667). Harrel (1990:737) confirms Sheth's proposals and suggests considering a subjectivist approach for consumer behaviour research: thus a change from logical positivism to humanism and recommending the use or incorporation of qualitative research techniques to allow for more than the obvious. Qualitative research methods and techniques allow for the true views of consumers to unfold and allow for the unexpected - an important prerequisite for theory building and concept formation (Schiffman & Kanuk, 2000:14, 15).

A subjectivist approach does not view the discovery of causal laws, but rather examines the meaning of human action with the goal of attaining understanding. From the subjectivist perspective, credible knowledge is generated through making *anti-positivist* and *ideographic* assumptions. The world is thus considered to be essentially perceptual and is understood or studied from the point of view of individuals who are directly involved in the activities which are to be studied (Burrell & Morgan, 1979 in Hudson & Murray, 1986:344).

An advantage of implementing a subjectivist approach is that there is no initial reduction of variables. Research techniques allow and encourage participants to spontaneously unfold their experiences and purchase-related behaviour and fantasies (Hudson & Murray, 1986:345). Script elicitation procedures meet these recommendations.

CONCLUSION

Consumer behaviour as a discipline originated in the mid- to late 1960's. Many of the early theories were based on the economics theory presuming that consumers act rationally to maximize satisfaction in their purchase of goods and services (Schiffman & Kanuk, 2000:6). The consumer decision models and theories developed in the early years are still being used to structure research in the field of consumer behaviour and consumer sciences despite evidence that con-

⁵ S: stimulus; R: response; O: cognitive interpretation

sumer decision-making is a more complex phenomenon and that it can not be generalized over the wider spectrum of consumer goods.

Consumer facilitation, however, assumes an understanding of the consumer as a prerequisite. Researchers within the field of consumer science with an interest to contribute to the theory and understanding of consumer behaviour will have to focus on consumption behaviour that includes the intricacies of emotions, situational factors as well as personal influences under specific circumstances rather than buyer behaviour per se. Although widely published and used, traditional models of consumer behaviour should not be regarded the norm for organizing research and the interpretation of research findings. An exploratory approach with the intention to unfold the "truth" might provide exciting, inspiring opportunities for the understanding of the complexity of specific decision making circumstances such as **first-time home purchasing, purchasing of household appliances**, regular food purchasing activities, personal and family clothing selection.

The potential of scripts to "provide behavioral guidance" (Searleman & Herrmann, 1994:126; Stoltman, Tapp & Lapidus, 1989:385; Weisberg, 1980:56) and to reflect on the interaction of individuals and information in decision-making (Taylor, Cronin & Hansen, 1991:17) seems promising. Unfortunately, since the introduction of scripts within the area of consumer behaviour in the late 1970's, and the first script elicitation studies done by Whitney and John (shopping script, 1983) and Stoltman and co workers (examination of shopping scripts in 1989) within this area, little has been done to extend and implement the script concept in practice. Consumer decision-making and relating theory provide exciting opportunities for future research by professionals in the consumer science discipline. Adding to what has been done in the field of marketing sciences, consumer scientists could contribute their product specific knowledge and experience towards a more holistic understanding of consumer behaviour to ultimately contribute to theory building to the benefit of all.

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KEYWORDS

Scripts; script theory; consumer decision-making; properties and characteristics of scripts; script elicitation; schemata; event schemata; information processing

ABSTRACT

The term "schema" was introduced in 1932 by Bartlett, a psychologist, as a mental representation of experience. He postulated that an individual's experiences undergo processes of rationalization, elaboration and distortion within pre-existing schemata in memory (Shute, 1996:410). Unfortunately his work only gained appreciation two decades later and again in the cognitive psychology in the 1970's. Schank and Abelson (1977 in Eysenck, 1994:316) extended the idea of schemata to explain how knowledge of more complex "event sequences" is represented in memory: such knowledge structures were referred to as "scripts".

Several definitions for scripts exist: Puto (1985:404) for example defines a script as a coherent sequence of events expected by an individual in a particular context, involving him either as participant or as an observer, while a script is also described as a "mental picture plus caption" representing the action sequences, participants, and physical objects found in a situation (Abelson, 1981 in Schurr, 1986:498).

Scripts as form of declarative knowledge refer to the structural nature of scripts and also refer to how scripts are organized in memory (Matlin, 1998:231, 232). Scripts have certain properties (Bower et al, 1979 in Bozinoff & Roth 1983:656) and several structural characteristics that differentiate them from other memory presentations (Thorndyke & Yekovich in Smith & Houston, 1986:504) and make them exceptionally useful in terms of the study of consumer behaviour.

The fact that scripts contain generic information and that scripts are temporal in nature and sequentially ordered, open the prospects of exploring scripts as representations of specific events - even purchasing events. One of the major advantages of a script is that it is compiled from the perspective of the consumer. By definition a script specifies all participants and role players so that a more realistic scenario of a specific event could be inferred. In this literature overview, script theory is discussed and presented as an alternative to reveal consumer decision-making behaviour instead of relying on traditional consumer decision models that researchers and academics have become so familiar with and accustomed to.

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The potential of using script theory in consumer behaviour research

Alet C Erasmus, Elizabeth Boshoff and GG Rousseau

OPSOMMING

Die schema-konsep is in 1932 deur Bartlett, 'n sielkundige, bekendgestel as 'n denkbeeldige voorstelling van 'n bepaalde ondervinding. Hy het beweer dat 'n individu se ondervindinge in die geheue gerasionaliseer, aangepas en verdraai word binne die raamwerk van bestaande schemata (Shute, 1996:410). Ongelukkig is daar eers twee dekades later aan sy werk aandag gegee en toe weer in die 1970's in die kognitiewe sielkunde. Schank en Abelson (1977 in Eysenck, 1994:316) het die idee van schemata uitgebrei om te verduidelik hoe kennis van meer komplekse gebeure in 'n bepaalde orde in die geheue vasgelê word. Daar is na hierdie kennisstrukture as "geskifte" verwys.

Geskifte word op verskeie maniere gedefinieer. Puto (1985:404) definieer 'n geskifte as 'n aantal verbandhoudende gebeure wat deur 'n individu - as deelnemer of waarnemer - in 'n bepaalde konteks verwag word. 'n Geskifte word ook beskryf as 'n denkbeeld met byskifte wat die volgorde van aksies, deelnemers en fisiese objekte wat in die situasie teenwoordig is insluit (Abelson, 1981 in Schurr, 1986:498).

Geskifte as 'n vorm van verklarende kennis verwys na die strukturele aard daarvan en ook die wyse waarop geskifte in die geheue georganiseer is (Matlin, 1998:231, 232). Geskifte het bepaalde **eienskappe** (Bower et al, 1979 in Bozinoff & Roth 1983:656) en verskeie **strukturele kenmerke** wat hulle van ander denkraamwerke onderskei (Thorndyke & Yekovich in Smith & Houston, 1986:504) en hulle besonder bruikbaar maak vir die bestudering van verbruikersgedrag.

Die feit dat geskifte generiese inligting bevat wat in terme van die volgorde van aktiwiteite/aksies saamgestel is, bied die moontlikheid om geskifte te ondersoek om spesifieke gebeure - selfs aankoopgebeurtenisse - voor te stel. Een van die voordele van 'n geskifte is juis dat dit op die perspektief van die verbruiker gebaseer is. Per definisie spesifiseer geskifte al die deelnemers en rolspelers sodat 'n meer realistiese scenario van die gebeurtenis gestel kan word. In hierdie literatuurorsig word die teorie van geskifte bespreek en voorgestel as 'n moontlikheid om verbruikersbesluitnemingsgedrag bloot te lê in plaas daarvan om tradisionele verbruikersbesluitnemingsmodelle te gebruik waaraan navorsers en akademici al so gewoon geraak het.

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INTRODUCTION

The purchasing of household appliances (durables) is typically categorized as a complex, high-risk consumer decision. Because of the fact that there are very few decision-making models¹ that reflect specific purchasing events such as the acquisition of household appliances, traditional consumer decision-making models are generally used to structure and interpret consumer behaviour research - even for product specific research. These models provide broad, organized structures that reflect consumer decision-making from different viewpoints and within different contexts but inevitably mean that the research approach has to coincide with the assumptions of the original authors. Generalizing consumer decision-making to such an extent for any consumer product unfortunately implies a biased approach to consumer decision-making from the start (Burns & Gentry, 1990:522).

Researchers have become increasingly critical in recent times objecting to the use of traditional consumer decision-making models without careful premeditation of the context and purpose within which it is used. Since 1978 several arguments against the general use of traditional consumer decision-making models have been raised. Schurr (1986: 498), in reaction to such objections, for example postulated that *purchasing scripts could result in accurate predictions of buyer attitudes and judgment*.

Scripts, also known as event schemata, are memory structures that are well-known in the field of cognitive psychology. By definition scripts - if elicited and generated for specific events - could also be of value in the field of consumer science because of a script's potential to be used to describe and even predict consumer behaviour in specific circumstances. The potential of scripts to *provide behavioral guidance* (Searleman & Herrmann, 1994:126; Stoltman, Tapp & Lapidus, 1989:385; Weisberg, 1980:56) and to reflect on the interaction of individuals and information in decision-making (Taylor, Cronin & Hansen, 1991:17) has been raised before. Various researchers in the field of consumer behaviour have found memory schemata to be important in the structure of consumer knowledge (Leigh & Rethans, 1983:668; Whitney & John, 1983:661-663; John & Whitney, 1982:75). From these reports it seems that scripts could be used to reflect specific types of consumer/buyer behaviour. There is substantial evidence that people form and use scripts

¹ Rousseau developed a model of adult purchase decision-making process for furniture (Du Plessis & Rousseau, 1999:91).

from a very early age (Searleman & Herrmann, 1994:126; Hoy, 1991:387). These scripts are stored in long-term memory and are activated and used automatically to guide behaviour in specific circumstances (Bozinoff, 1982:481).

A study of consumer decision-making for major household appliances, and more specifically an attempt to elicit and organize a specific script to be used as an alternative to traditional consumer decision-making models, therefore seems to coincide with recommendations for future research in the field of consumer behaviour. The script concept is generally accepted to be a valid construct with wide application (Taylor *et al*, 1991:17) and has been applied in areas such as cognitive, social, developmental and clinical psychology as well as cognitive anthropology as noted by Rummelhart (1980) and Abelson (1976) in Leigh & Rethans (1983:667) as well as Bartlett (1932), Bransford and Franks (1971), Minsky (1975), Rumelhart and Ortony (1977), Schank and Abelson (1977) and Mandler (1979) as cited by John and Whitney (1982:75). Despite the popularity of the script concept in psychology, no empirical use of scripts in the study of consumer decision-making has been reported until the early 1980's (Leigh & Rethans, 1983:667; Whitney & John, 1983:661). Since the introduction of scripts within the domain of consumer behaviour and since the first script elicitation studies by Whitney and John in 1983 (*shopping script*) and Stoltman *et al* in 1989 (*examination of shopping scripts*), little has been done to extend and implement the concept in practice (Stoltman *et al*, 1989:384).

Script theory's potential application in consumer behaviour research lies in the possibility that scripts (per definition) could shed light on consumers' expectations, pro-active planning as well as situational decision making processes and behaviour. The purpose of this literature review is to give an overview of basic script theory and consequently to explain the potential of scripts to serve as a representation of specific purchasing events. Scripts must however at this point be differentiated from *frames*: according to Collins, Gathercole, Conway and Morris (1993:41-43) both represent the structural properties of human knowledge in memory, although frames specifically refer to the recursive decomposition of specific components (concepts) in a memory structure (for example STORE VISIT can be divided into COLLECTING PRODUCT INFORMATION and COMPARING PRODUCT ALTERNATIVES while both can be further decomposed into separate frames, for example LISTING PRICE DIFFERENCES; STUDYING DIFFERENT BRAND NAMES).

The purpose of this overview is to discuss the possible existence of a script for a specific purchasing event in memory and to deliberate the structure and content of such a script rather than to focus on a detailed breakdown of each of the elements of the script into specific frames. This could, however, become the focus of a follow-up study.

BACKGROUND OF THE SCRIPT THEORY

The term *schema* as used in psychology, originated through work of Piaget (1926) and Bartlett (1932). It was Bartlett who described schemata as hypothetical mental constructs (abstract knowledge structures) that control attention and the reconstruction of memory and enables one to recognize and recall things that you have been exposed to before (Abelson, 1981:715). The formation of schemata is for example described as *an early memory occurrence that provides a young child with a basic representational system to cope in real life situations* (Hoy, 1991:387). Bartlett further postulated that an individual's original experience of an event undergoes processes of rationalization, elaboration and alteration within pre-existing schemata in memory over time within the limitations of one's cognitive development (Shute, 1996:410). He thus proposed memory to be a reconstructive process that involves interpretation of stimuli, and more importantly, the continual transformation of the original schemata (Matlin, 1998:6). Unfortunately an overriding dedication to the use of experimental methods of behaviourism in research during that time caused Bartlett's work to be ignored until American cognitive psychologists regained interest in the schema theory almost two decades later.

Contemporary cognitive psychology that includes themes such as attention, memory, concept formation and problem solving dates back to 1956. Cognitive psychology is part of a broader field, namely Cognitive Science that has particular interest in the human mind (Matlin, 1998:10). When the schema concept once again attracted interest in the cognitive psychology in the 1970's, Schank and Abelson (1977) as reported by Eysenck (1994:316) extended the idea of schemata to explain how knowledge of more complex event sequences is represented in memory. Such knowledge structures were referred to as scripts and represent elements indicative of repeated experiences of events. According to script theory - that is a specific elaboration of Minsky's frame theory (Bower, Black & Turner, 1979:178) - a script consists of a sequence of goal directed actions that are causally and temporally ordered and includes the relevant people, objects and locations (Sutherland, 1995:413; Bower *et al*, 1979:178).

Experimental evidence of the psychological reality of schemata and scripts has accumulated since (Vosniadou, 1996:403; Eysenck, 1994:316, 317; Searleman & Herrmann, 1994:125). Modern versions of the schema theory play a prominent role in current theories of memory (Eysenck, 1994:316). Of specific importance for this article, is that theorists within the broad field of cognitive science propose that thinking involves the manipulation of internal representations (mental models) of the external world (Matlin, 1998:10). The schema concept, as developed by Bartlett in 1932, still forms an integral part of the paradigm of cognitive psychology.

SCRIPTS AS A SPECIFIC FORM OF SOCIAL SCHEMATA

Categories of schemata

Social schemata are cognitive structures that are categorized into four groups (Taylor *et al*, 1991:15), namely *self schemata* (that contain information about one's own personality, appearance, behaviour); *person schemata* (that focus on traits and behaviours common to types of people); *role schemata/person-in-situation schemata* (that include information about people and their typical behaviour in specific social situations) and *event schemata/scripts* (that include knowledge about the expected sequence of events in a given situation). A script therefore is a social schema with specific characteristics. To fully understand scripts, the relevant concepts are defined and discussed first.

Definition and discussion of relevant and related concepts

Schema/ta According to the *standard theory* in cognitive psychology, schemata are stored frameworks (cognitive structures) of knowledge about specific objects or topics and are represented by nodes in semantic memory² (Brown, 1992:787). Schemata thus contain units of information that are interconnected to form an integrated whole (Alba & Hasher, 1983; Bartlett 1932; Fiske & Dyer, 1985 in Taylor *et al*, 1991:15) and can be described as *abridged, generalized, corrigible organizations of experience that serve as initial frames of reference for action and perception of similar experiences* (Weick in Schurr, 1986:498). A schema in part consists of a defined stimulus domain, is linked to a specific experience and contains general/generic knowledge about that domain including the relationships among its attributes and examples of instances of the stimulus domain. When one is exposed to any object or situation, a schema is retrieved from long-term memory into working memory to serve as a frame of reference so that one is able to interpret, accept and understand the object/situation (Brown, 1992:787; Hoy, 1991:387).

A schema assumes the operation of four mental processes: the *selection* of incoming stimuli for *mindful presentation* and *interpretation* using prior knowledge to support the *comprehension* and *integration* for *storage* in the memory (Schurr, 1986:498). Individuals eventually rely upon stored, generic concepts/events in a schema to solve problems, to set goals, select behaviour or to provide direction for further information search (Leigh & Rethans, 1983:667; Whitney & John, 1983:661). According to the schema theory, we summarize the regularities in our lives and after a while, any single *event* can no longer be distinguished from other similar events. We in fact reconstruct generic representations of similar events (Matlin, 1998:158). Schema theory thus refers to the *interpre-*

tation of experience rather than the *exact representation* of experiences (Thagard, 1998:60; Shute, 1996:410).

Schema theories have been proposed as a means whereby individuals deal with the overwhelming amount of information in the environment: a schema enables selective perception in every day living by controlling information selection and focusing attention on a limited portion of stored knowledge (Schurr, 1986:498).

Schemata in terms of knowledge and cognitive structures A cognitive process refers to the way in which consumers (human beings) process information (Schurr, 1986: 498; White, Curbow, Constanzo & Pettigrew, 1983:636). According to the *standard theory of cognitive structure*, knowledge is stored in long-term memory as schemata. Schemata refer to large sets of well-structured cognitions that have been learned over time with experience (Lindsay & Norman, 1975, Norman & Bobrow, 1975 in Bozinoff & Roth, 1983:655; Abelson, 1981:715) and consist of frameworks for organizing information about a concept into a meaningful structure (Ashcraft, in Brown, 1992:787; Bozinoff & Roth, 1983:655; Bozinoff, 1982:481). One would therefore not be able to recognize an object such as a washing machine unless one has a conception or schema of what a washing machine is (Taylor & Crocker, 1981 in Whitney & John, 1983:662). Schemata are regarded as the building blocks for cognition (Leigh & Rethans, 1983:667) but they are not static: they are the result of a continuous cognitive process and change with experience (Whitney & John, 1983:661).

Any information that an individual is exposed to is organized in memory through schemata, to give meaning to stimuli and to enable interpretation and comprehension of any situation as new, familiar or unique. According to Lord and Foti (1986, in Taylor *et al*, 1991:15) people depend on such highly structured knowledge systems to conclude appropriate subsequent behaviours. Schemata in essence provide a knowledge base that serves as a control mechanism to facilitate (or limit) one's understanding of the world and events and to assist individuals to effectively deal with complex tasks (Fayol & Monteil, 1988, Lord & Foti, 1986 in Taylor *et al*, 1991:16).

According to Fayol and Monteil (1988, in Taylor *et al*, 1991:16) schemata can be executed automatically when needed while Langer, Blanck and Chanowitz (1978, in Taylor *et al*, 1991:16) concluded that individuals unconsciously categorize facts they are confronted with and then act upon them automatically. However, when an individual is exposed to an unfamiliar situation where stimuli do not correspond with his expectations of the situation, mental thought becomes conscious and the semantic content (general knowledge) will dominate (Leyens, 1983 in Taylor *et al*, 1991:16).

Scripts Scripts are a specific form of schemata, namely *event* schemata and can be described as tem-

² Semantic memory refers to so-called *general* knowledge.

porally and sequentially ordered schemata (hypothetical knowledge structures) in long-term memory that contain series of actions which are arranged in the hierarchical or causal ordering of their elements (Whitney & John, 1983:662). A number of more detailed definitions for scripts exist, all referring to the same phenomenon but emphasizing different dimensions. Puto (1985:404) for example defines a script as a *coherent sequence of events expected by an individual in a particular context, involving him either as participant or as an observer*. A restaurant script, for example, may therefore contain scenes/elements such as *entering, being seated and ordering* and certain schemata, such as the *waiter* may represent certain significant components of that script. Abelson (1981:718) describes scripts as *rich packages of information* and preferred a more visual definition: he regarded a script as a *mental picture plus caption – representing the action sequences, participants, and physical objects found in a situation*.

Because a script is a structure that consists of interconnected elements, the actions in one slot affect the contents of the other (Schanck & Abelson, 1977 in Whitney & John, 1983:662; Den Uyl & Van Oostendorp, 1980:278). Scripts that have been stored in an individual's memory include routine, well-practiced event sequences and over time. Through continuous learning, the application of scripts in real life situations becomes automatic (Speck, Schumann & Thompson, 1988:70; Bozinoff & Roth, 1983: 655,656; Whitney & John, 1983: 661). In practical terms it means that scripts are used in situational context to direct behaviour when activated (Sutherland, 1995:413; Stratton & Hayes, 1993:173; Whitney & John, 1983:662; Bozinoff, 1982:481). Scripts are particularly valuable because they conserve effort. A script for example enables someone to act instead of relearning the steps of appropriate buying behaviour with every subsequent purchase (Martin, 1991:225). Individuals can consciously extract from their scripts when asked to describe familiar activities. The result is an automatic process although the initial development of scripts is conscious. A situation therefore triggers the appropriate script or part of a script (subscript) and guides behaviour (Stoltman *et al*, 1989:384) as it specifies the events that can normally be expected to occur (Taylor *et al*, 1991:18; Puto, 1985:404).

In psychology, attempts have been made to broaden and define script content by identifying the common and unique properties of scripts (Stoltman *et al*, 1989:384). Scripts were found to be a *function of the context*. A generic restaurant script should thus be replaced by a *fine dining* script or a *fast food* restaurant script to fully capture the unique characteristics of the different events. Of special interest to the discipline of consumer science, is the premise that the development of a generic script for any specific consumer decision-making situation will provide a basic scenario that could be adapted for similar decision-making situations – thus establishing a whole new avenue to explore.

Metascripts In addition to the script concept, so-called *metascripts* or *memory organization packages (MOPs)* exist (Abelson, 1981:726). These refer to a family of knowledge structures that are stored as reminders or to facilitate understanding through previous experiences. For any individual, separate experiences (for example buying experiences) may contain sufficient subjective similarity to achieve coherence despite differences in detail (shopping for clothes would include a scene for *fitting of clothes* while shopping for appliances will not). Ultimately, the presence of salespeople, the display of appliances/ garments will evoke similar cognitive representations and these will form part of a metascript. The metascript concept provides the opportunity to adapt a script to portray other, similar events (Forrest-Pressley, MacKinnon & Waller, 1985:111-115).

Scripts versus frames, habits and stories There is a distinction between scripts, frames, habits and stories in terms of cognitive involvement and detail provided.

- ♦ Both scripts and frames can be described as representations of knowledge in memory with multiple levels of hierarchical structure. A script more specifically refers to event schemata that consist of various elements in a specific hierarchical order while any single element of a script (for example STORE VISIT can be interpreted as a frame that can be further divided into COMPARISON OF PRODUCTS which is a frame in itself and DELIBERATION OF ALTERNATIVES which is another frame of knowledge) (Collins *et al*, 1993:41-43). Frame theory is popularly implemented in artificial intelligence and has potential in production systems while scripts specifically refer to event schemata (Collins *et al*, 1993:43).
- ♦ According to Langer and co-workers (1978, 1979 in Whitney & John, 1983:662), script processing requires a certain amount of conscious thinking (e. g. where to sit in the restaurant and what to order). It is only when the sequence of actions are disturbed or when the actions differ from what is expected (for example when no menu is provided in the restaurant), that conscious thinking takes over and the consumer calls upon the waiter for assistance so that a meal may be ordered (thus for scripted activities to proceed). Although a script is activated automatically it does not imply mindless behaviour. For scripts, the cognitive aspect that is involved is explicit in the specified event sequences and when one is confronted with variations to constancies and needs to adapt (Abelson, 1981:722). There can for example be different script paths/tracks offering different alternatives to normal procedures: if the menu is on the table, the waiter need not be asked for one (restaurant script); if payment options are displayed obviously in the store, a salesperson need not be asked for such details (buying script).
- ♦ Habits, on the other hand, do not provide for such variations and refer to (mindless) response behaviour (for example paying by credit card for the meal every time you go to a restaurant). A script could in

some instances become a habit, for example when someone always sits in the same corner and always orders the same meal (Whitney & John, 1983:662).

- ◆ In contrast to a script that is generic in nature with no detail included, *stories* contain more detail relating to specific experiences (Whitney & John, 1983:662; Abelson, 1981:723).

EMPIRICAL EVIDENCE FOR SCRIPTS

Since the introduction of scripts, various efforts have been made to find empirical evidence for scripts. Bartlett (1932) found that when subjects were given stories to memorize, they tended to adapt the stories to conform to their own ideas/scripts, in other words to coincide with existing knowledge. Bozinoff and Roth (1983:656) suggest that subjects store experiences in the form of scripts and then draw upon their own scripts to complete stories. Other studies cited by Bozinoff and Roth (1983:656, 657) confirm this: for example Brandsford, Barclay and Franks (1972) found that when questioned, subjects tend to construct semantic descriptions of situations rather than to remember the details of information that were presented to them. Baggett (1975 quoted by Bozinoff & Roth, 1983:656, 657) also found that during a memory task, subjects filled in missing details based on their own experience to complete a story. This means that scripted information stored in memory, is used to fill in missing information.

Parental descriptions of toddlers' pretended shopping behaviours (Hoy, 1991:387) suggest the emergence of script-related knowledge at a very early age: child-development literature in fact suggest that children at the age of 24 months already possess sufficient cognitive and social skills to acquire rudimentary consumer knowledge. The script framework has also been used to describe children's socialization as consumers (Schank & Abelson, 1977 in Hoy, 1991:387; Forrest-Presley *et al*, 1985:45).

The formation of scripts, however, is an individual phenomenon. Scripts for the same event (e.g. the purchasing of a house or major household appliances) will therefore differ from person to person although such scripts will agree on the most significant aspects so that a so-called shared script could be inferred. This is ascribed to the fact that scripts are developed through interaction with the environment (Nottenburg & Shoben, 1980: 330).

SCRIPTS AS PERFORMANCE STRUCTURES AND IN TERMS OF INFORMATION PROCESSING CAPACITY

Scripts are knowledge structures that play a dual role: they can be categorized as scripts in *understanding* and scripts in *behaviour* (Abelson, 1981:719; Bower *et al*, 1979:178). By retaining and then retrieving actions from previous experiences, scripts facilitate the

understanding of events/situations and also direct behaviour so that new actions need not be learned for similar situations (Bozinoff & Roth, 1983:655). According to Taylor *et al* (1991:16), scripts also contribute to the understanding of the behaviour of others. Scripts consequently guide behaviour as well as the appropriate sequence of actions in a specific context so that the individual does not have to devote full attention to incoming stimuli (Puto, 1985:404; Whitney & John, 1983:663, 664). Scripts thus contribute to comprehension (Gibbs & Tenney, 1980:275-284; Nottenberg & Shoben, 1980:330) by providing a structure of how the world operates from personal or explicit experiences by guiding lower-order information processing (Leigh & Rethans, 1983:667; Abelson, 1980 & Martin, 1980 in Whitney & John 1983:662). Because a script signifies stereotypic conception, it facilitates the ordering of incoming information. Individuals thus use scripts as an aid to plan, handle and understand situations and activities (Bower *et al*, 1979:178).

Although scripts are initially developed in a *conscious* learning context, an activated script will probably result in automatic or routine response with little conscious effort required due to the fact that familiar activities, through over learning, eventually become automatic (Speck *et al*, 1988:70; Bozinoff & Roth, 1983:655, 656; Whitney & John, 1983:661). The situation therefore triggers the appropriate script in memory and provides behavioural guidance (Stoltman *et al*, 1989:384). When an individual has to react to a stimulus that differs from what is preserved in the script in memory, the script will dominate so that the individual will be inclined to act in terms of the script. Of specific interest for the theory of consumer decision-making is the characteristic of a script to conserve a consumer's limited information processing capacity and to reduce cognitive strain due to encoding and retrieval processes from memory. A script facilitates action by minimizing effort and it reduces information overload by stimulating selective attention to information/stimuli (Taylor *et al*, 1991:16; Leigh & Rethans, 1983:667; Whitney & John, 1983:662; Bozinoff, 1982:481).

PROPERTIES AND STRUCTURAL CHARACTERISTICS OF SCRIPTS

Although different scripts exist in memory as a function of contextual cues and also as a result of core and peripheral actions (Stoltman *et al*, 1989:384), studies have indicated that scripts possess certain properties (Bozinoff & Roth, 1983:656; Bower *et al*, 1979:177-179):

- ◆ There are **script norms**: a script for a specific event always contains the same *characters* (*people*), *props* (*objects*) and *actions* and is further characterized by a *specific order of events*, thus a specific bundle of expectations about the event. Script norms are also referred to as sets of *vignettes* (Abelson, 1981:717). (*Example of a vignette*: The waiter (character) presents (action) the menu (object) to the client (character).
- ◆ Within a script, series of action sequences are al-

ways grouped into **segments/scenes/elements** in a similar way so that any script contains several elements that represent the characteristic grouping of actions. Each element has a definite *main conceptualization* or *MAINCON* (Abelson, 1981:717), *in other words one or more central or top-level events that always take place* (Den Uyl & Van Oostendorp, 1980:278) (*Examples of MAINCONS in a restaurant script: Ordering the meal; Paying the bill*) (Bozinoff & Roth, 1983:656).

- ♦ Script elements are always **organized in a common order**. Research has shown that when the series of actions for a specific event are scrambled out of order, subjects tend to use a **common order** to unscramble and organize them.
- ♦ Subjects are **not conscious** of scripted activities due to the automatic nature of scripts and the fact that scripts are stored in long-term memory, which make it rather difficult to retrieve in an experimental situation. As a result, when confronted, subjects often remember exceptional actions rather than scripted ones (Graesser, Gordon & Sawyer, 1979 and Graesser, Woll, Kowalski & Smith, 1980 in Bozinoff & Roth, 1983:656). Subjects do however have the ability to draw upon scripts to describe familiar activities on condition that they have to be prompted very specifically within a specific context to successfully elicit scripted activities.

Several **structural characteristics** differentiate scripts from other memory presentations (Thorndyke & Yekovich in Smith & Houston, 1986:504):

- ♦ Scripts only contain the **common (generic) actions** for a prototypical event and can be described as a network of generic actions that are combined according to certain rules - almost like a model or framework that needs to be elaborated with detail (Morris, 1987:189; Abelson, 1980 in Bozinoff & Roth, 1983: 655). Scripts thus contain a specific nature of knowledge (*concept abstraction*) excluding the details of the event.
- ♦ Scripts **possess a set quality**: when access is gained to any component action (element) of a script, access to the entire group of actions constituting an event is obtained because the various elements are linked and interconnected. An individual will thus automatically respond to the situation taking into account the entire event including the preceding actions (Smith & Houston, 1986: 505).
- ♦ **Temporal or causal sequence** is typical of a script's organization. Certain actions must therefore precede other actions in time in a particular set to provide the enabling conditions for the latter actions to occur (for example *reading the menu* before *ordering the meal*) (Thorndyke & Yekovich in Smith & Houston, 1986:504).
- ♦ Scripts possess a **hierarchical structure** that determines the relationships among actions of varying levels and how they interconnect to constitute an event (Smith & Houston, 1986:504). Abbott and Black (1980, in Smith & Houston, 1986:504) describe this hierarchy in three levels namely a

script header, scene headers and *scene actions*. A *script header* represents the macro level of the hierarchy and summarizes the entire event (e.g. *dining in a restaurant*). The event consists of several scenes, identified by *scene headers* (e.g. *entering the restaurant*) that exist at an intermediate level of the hierarchy and contain more detailed information/scene actions. The scene actions are at the lowest level of the hierarchy and include the individual actions relevant to a specific scene (*Example: The Ordering scene* in the restaurant script may consist of *Reading the menu; Discussing the choices; Placing an order*) (Smith & Houston, 1986:504).

- ♦ Scripts may also **vary in strength**: strong scripts are more explicit and contain several scene constraints, in other words many actions that *must* occur. Weak scripts, on the other hand, are vague and have fewer scene constraints so that some scenes do not have a high probability of occurring (*Example: A strong restaurant script* (fine dining) will always have a waitress while a *weak script* (fast foods restaurant) need not) (Bozinoff & Roth, 1983:655; Abelson, 1981:717).
- ♦ Script events may also **vary in degree of centrality**: more central events are referred to as *main conceptualizations* around which other aspects of the script are organized. Idiosyncratic differences would be expected for less central events that reflect unique personal experiences (Whitney & John, 1983:662).

RELEVANT LEARNING THEORY

In cognitive psychology it is understood that people interpret the world in terms of concepts that are organized into large conceptual structures within memory (Vosniadou, 1996:402; Lai, 1994:491). It is further proposed that people comprehend complex sequences of events in memory structures known as *schemata, scripts* and *frames*. Schemata (and scripts) are presumed to be represented in memory in an abstract form (bearing no direct relationship to a given form of perception e.g. visual, auditory, tactile). They are further presumed to be stored as frameworks of knowledge in long-term memory with their defining characteristics contained in a propositional format, organized according to specific rules for use in subsequent acquisition of *declarative knowledge* (Shute, 1996:416; Vosniadou, 1996:404; Brown, 1992:787; Bozinoff, 1982:481). Scripts as form of *declarative knowledge* refer to the *structural nature* of scripts, i.e how scripts are organized in memory (*if this happens, then that follows*) (Matlin, 1998:231, 232).

Declarative knowledge more specifically refers to the organization of propositions, concepts and schemata in the various conceptual structures in memory (Matlin, 1998:230; Shute, 1996:414; Vosniadou, 1996:404). According to Andersen's ACT* (ACT star) theory declarative knowledge refers to knowledge about facts and things. It further proposes that the

declarative network consists of an *interconnected set of propositions*. An example would be washing machines sold at specific stores in specific departments. Another example would be visual images in stores, of all the washing machines displayed together or information about the order of events for example deciding what type of washing machine is required before buying (Matlin, 1998:230). Associative processes and inductive reasoning are used to produce declarative knowledge outcomes.

According to the *constructive model of memory*, schemata facilitate memory abstraction so that one is able to understand and interpret an event even without details about the original event (Matlin, 1998:256). A script is considered to be a *prototype of a sequence of events* (Matlin, 1998:245) and creates strong expectations about the event that affect and enable the interpretation of information. There is evidence that scripts (stereotypical event schemas) influence the way in which people remember information and make inferences in complex situations (Vosniadou, 1996:403).

The use of scripts to recognize situations, refer to *top-down cognitive processing (concept driven processing)* that refers to the influence of concepts, expectations and memory to conclude appropriate behaviour (Matlin, 1998:21). These conceptual structures in memory are continuously modified to incorporate experience and this explains why individual scripts for the same event will differ in certain aspects (Matlin, 1998:165; Shute, 1996:416; Vosniadou, 1996:404): *enrichment* refers to the addition or deletion of concepts in memory; *tuning* refers to the evolutionary changes in the application of schema to interpret data; *accretion* refers to gradual accumulation of information, while *restructuring* refers to the creation of new knowledge structures.

Script theory is based upon the existence of higher order memory structures and involves unique access to entire sets of knowledge in memory. Speck *et al* (1988:70) refer to Brewer and Namakura (1984) and Alba and Hasher (1983) who explain script theory in terms of selective attention, encoding and retrieval, information processing and then emphasize relational context as the basis of meaning. The implication of the learning theory (more specifically the basic theories of cognition) for schema research, is that *experience* is an important prerequisite for participation in a script elicitation study to ensure that participants have been exposed to conditions over time that would have allowed for the formation of the desired complex, abstract schemata/scripts in long-term memory.

RATIONALE FOR THE ELICITATION OF SPECIFIC SHOPPING SCRIPTS

A major advantage of a script is that it contains a sequence of events from the point of view of the consumer (Abelson, 1981:715) and ultimately has the potential to offer valuable insights into consumer be-

haviour (Taylor *et al*, 1991:16). Taylor *et al* (1991:17) refer to Barsalou and Hutchinson (1986) who investigated the role of schemata in planning and concluded that consumers use the most general aspects of schema knowledge on most occasions while other types of information tend to be more variable and context specific. From this it seems that scripts could provide a mechanism for linking expectations (assumed to be based on scripts) with both proactive planning as well as the situational decision-making process. In contrast to consumer decision-making models, scripts categorically identify principle actions, the people (actors) and the objects involved in a recurring situation/event. Scripts thus have the advantage over consumer decision-making models in the sense that scripts facilitate the study of individuals (consumers and other role players), objects and roles within specific decision-making contexts (Calder & Schurr, 1981 in Speck *et al*, 1988:70; Schurr, 1986:498-501). Because scripts reflect consumers' mental representation of an event (i.e. actual behaviour in the minds of consumers) (Bozinoff, 1982:485), scripts could provide valuable guidelines on how to go about changing/adapting consumer behaviour. An understanding of script theory also serve as a reminder that consumers tend to act on what they are familiar and comfortable with and are reluctant to learn/accept new ideas so that they are inclined to revert to scripted activities that are somewhat related to routine response behaviour (Bozinoff & Roth, 1983:659).

It is suggested that research on scripts and more specifically an effort to successfully elicit and organize scripts for specific consumer decision-making activities, will contribute to expanding theory in consumer/buyer behaviour. This will be to the benefit of:

- ◆ **Consumers.** Scripts identify the people and objects involved in an event as well as the actions taken. The elicitation of scripts for specific events/activities will result in an improved understanding of actual buyer behaviour. Consequently consumer assistance could be planned and directed more effectively instead of it being irrelevant, haphazard, confusing and even overwhelming.
- ◆ **retail and industry.** Scripts can provide an avenue to plan more effective marketing strategies in the sense that a script provides a more realistic reflection of the decision-making process as it is generated from the view of the consumer. The relevant people can be targeted and the type of assistance can be provided, where and when it is needed most.
- ◆ **consumer advisors.** Because scripts reflect buyer behaviour from the perspective of consumers, it will be possible for consumer advisors employed by suppliers of goods and services to provide assistance where and when required rather than to focus on what is *assumed to be* important.
- ◆ **the market-place.** Scripts have the potential to shed light on buyer behaviour so that the inputs and contributions of the parties involved in the process can be planned and coordinated to the benefit of all.

- ◆ **consumer education.** Scripts provide information (for example on information search and financial decision-making) that may assist or serve as guidelines in consumer-education programmes at school or tertiary institutions.

CONCLUSION

It must be appreciated that traditional consumer decision-models have, up to now, made an important contribution to concept formation and theory building and have been valuable in marketing and in the field of consumer science in providing theoretical frameworks for the study of various aspects of consumer behaviour. They have however been criticized in a number of ways in recent years (Erasmus, Boshoff & Rousseau, 2001: 83-87) and the need to explore alternatives is inevitable.

The fact that scripts contain generic information (thus free from cluttering) and that it is temporal in nature and sequentially ordered, provide the opportunity to elicit and organize a more specific representation of a consumer decision-making event. Because scripts reflect the perspective of the consumer and specify all participants and role players (Schurr, 1986:498-501; Abelson, 1981: 715-718) a more realistic scenario of a specific event such as consumer decision-making could be deduced from a script. Scripts are hereby proposed as an alternative to or, at least, the enhancement of traditional consumer decision-models in an effort to address many of the problems associated with traditional models (Erasmus *et al*, 2001:83-87).

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