EVIDENCE FOR ATTITUINAL-BEHAVIOURLAL CONSISTENCY:
IMPLICATIONS FOR CONSUMER RESEARCH PARADIGMS
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ABSTRACT

Evidence is presented in this paper to show that the view of marketing communications effects promulgated by numerous marketing, advertising and consumer behaviour texts and journals should be questioned. This is the portrayal of advertising, in particular, as strongly persuasive, a pre-purchase influence which acts upon purchase behaviour by first operating upon and modifying mental attitudes. The latent process conception of attitude upon which this perspective is founded lacks convincing empirical support. Situational rather than inner-state variables appear to mediate behaviour and may require prior importance in explicative and predictive accounts of consumer choice. Recognition of this would require a probability conception of the attitude construct which would have profound implications for consumer research and marketing management. Above all, it suggests that an alternative psychological paradigm might be accorded a more central place in investigations of consumer behaviour.
SCIENTIFIC PROGRESS

Progress in science is not necessarily the result of the straightforward, evolutionary accumulation of knowledge within a given framework of conception and analysis. The revolutionary substitution of a previously productive framework or paradigm by an innovatory common understanding of what concepts are relevant, the canons of scientific judgement that are applicable and the requisite methods of data collection, analysis and interpretation also appears to be a periodic pre-requisite of scientific advance, at least in the physical and natural sciences. The hypothesis that such 'mature' sciences progress by means of such paradigmatic supersession, put forward by Kuhn (1970; cf. Lakatos, 1970), nevertheless requires clarification within the context of social science.

Within a particular discipline, exponents of paradigm-based, 'normal science' are unlikely to favour the adoption of what they see as a subversive philosophy. The first cracks in the scientific community's acceptance of the prevailing paradigm appear only as the inability of theories devised within it to account for new observations and findings becomes abundantly evident. The repeated failure of existing theories manifests itself in a state of crisis marked by the proliferation of alternative theories and the almost-random production of empirical results. The periods of crisis ends only when an alternative paradigm is demonstrated overwhelmingly to conform to the evidence to which the scientific community now attaches relevance and salience. According to Kuhn (1963: 340-1), the mature sciences are marked by the dominance of a single paradigm - except in times of crisis - and the social sciences appear to deviate from this description of scientific progress in view of the tendency of their communities to embrace several competing paradigms simultaneously. Kuhn refers to these disciplines as pre-paradigmatic and it may well be that the phase through which a discipline passes en route to becoming a paradigm science is akin to the critical period which precedes the process of paradigmatic displacement in mature sciences. Alternatively, the nature of the social sciences may be such that a plurality of competing paradigms is inevitable.

That the social sciences do not correspond precisely to Kuhn's model of scientific progress should not, however, obscure the value of conceiving of social scientific activity in terms derived from it. The concept of 'attitude' can be usefully discussed in terms of the many competing theories advanced in recent decades to account for attitudinal-behavioural relationships. Cognitive consistency theories have appeared in several versions (cf. Festinger 1957, Rosenberg 1960) which have challenged balance theory (Heider 1946) and congruity theory (Osgood
and Tannenbaum 1955). Learning theories (cf. Staats 1975, Bandura 1978, Ajzen and Fishbein 1980, Hovland, Janis and Kelley 1953, Weiss 1968, Bem 1965) have provided distinctive explanations as do social judgement theory (Sherif, Sherif and Nebergall 1965), attribution theory (Kelley 1967) and functional theory (Katz 1960, Kelman 1958). These and other analytical frameworks are discussed and evaluated by Himmelfarb and Bagly (1974: 9-47) and Fishbein and Ajzen (1975: 22-5). The possibility that attitude research resembles a science in crisis is self-evident and is supported by the multiplicity of ad hoc empirical investigations which characterise it (Fishbein and Ajzen 1972: 532). Similar processes are apparent in attitude-behaviour debates in the marketing literature (Mostyn 1978, Dholakia 1979) and the substitution of the prevailing cognitive information processing paradigm by behaviourism has recently been mooted in marketing papers (Kassarjian 1978, Nord and Peter 1980, Peter and Nord 1982, Rothschild and Gaidis 1981). The present paper is concerned with the consequences of recent theoretical and empirical accounts of attitudinal-behavioural relationships for the paradigm within which consumer research takes place and managerial prescriptions for functional marketing are formulated.

MARKETING PARADIGMS

Attitudes, Behaviour and Persuasion: The Prevailing Paradigm

Marketing authors generally attribute considerable power to marketing communications (notably advertising) to strengthen or cause changes in consumers' attitudes which, in turn, maintain or modify consumer behaviour. Study of the communications process and its elements - the message source (analysed in terms of its credibility, likeability and status), the message (order of arguments, two-sided appeals, etc.) and the audience (persuasibility, self-esteem and initial attitudinal position, etc.) - is expected to lead to its more effective control (e.g. Janis and Hovland 1959). This approach figures strongly in the comprehensive models of consumer behaviour (Andreasen 1965, Engel, Blackwell and Kollat 1978, Howard and Sheth 1969, Niccosia, 1966), all of which espouse the view that pre-purchase attitudes are determinative and that behavioural change is a function of the antecedent modification of mental attitudes. In addition to these comprehensive models of consumer behaviour, there exist numerous simpler 'hierarchy of effects' models similarly based upon the notion of pre-purchase mental processes which culminate in the 'strong conviction' that determines brand choice (Strong 1925, Colley 1961, Lavidge and Steinger 1961, McGuire 1969a, Britt 1978). All draw upon the stimulus - organism - response theory (e.g. Tolman 1932) or 'mentalism' which Moore (1978: 62) notes contains three features: '(a) the bifurcation of human experience into a
behavioural and a pre-behavioural dimension, (b) the use of psychological terms to refer to organo-centric entities from the pre-behavioural dimension, and (c) the use of organo-centric entities as causally effective antecedents in explaining the behaviour'. The implications for managerial action and consumer research derive principally from the casting of attitudes as the primary antecedents of buyer behaviour (Axelrod 1968). From the perceptual mapping which underpins brand positioning, to the measurement of price sensitivity, from the formulation of distributors' images to the persuasive information of potential purchasers, attitude measurement and attitude dynamics pervade the prescriptive accounts of marketing mix management encountered in the contemporary literature.

The cognitive information processing perspective or paradigm has become influential in both social psychology and consumer research largely as a result of the work of McGuire (1969b; Eagly and Himelfarb 1978). Its primary impact in marketing has been felt in the area of marketer-dominated communications; thus Ehrenberg and Goodhart (1980b), term it the 'strong' theory of advertising in which marketing communications are depicted as extremely persuasive, determining attitudes at the pre-purchase stage of consumer choice.

Behaviour Modification in Marketing: The Alternative Paradigm

The focus of the behavioural learning perspective is behaviour itself rather than the mental antecedents attributed to behaviour by cognitive psychologists. Watson (1914) made stimulus-response (S-R) relationships the fundamental unit of psychological analysis but modern behaviourism has not been confined to the classical conditioning approach he developed. Skinner's operant conditioning approach (Skinner 1953, 1957, 1978) is based upon the observation that 'behaviour is shaped and maintained by its consequences' (Skinner 1973: 23). Operant behaviours, in contradistinction to the reflexes produced by classical conditioning, are frequently said to be voluntary since the subject is said to operate upon his environment in order to elicit instrumental consequences (Skinner 1974: 39-40). Rather than trying to maintain or modify behaviour by acting upon its alleged cognitive predeterminants, behaviourists manipulate the environments within which operant behaviours and their consequences occur; the contingencies of reinforcement thus devised, including the schedules of reinforcement available to the individual, are held to shape, maintain and determine the continuity pattern of behaviour.

Cognitive learning theory and behavioural learning theory thus posit antithetical views of how individuals acquire
behavioural tendencies. Behaviourists, including social learning theorists such as Bandura and Walters (1963; Bandura 1969, 1978) accord little explicative value to the concept of attitude. The verbal responses which provide the raw material of the 'attitude data' of cognitive psychology are, according to the behaviourist perspective, simply a class of behaviour; such 'verbal behaviour' is usually distinguished from nonverbal, 'overt' action. Verbal and nonverbal behaviours with respect to a given object are likely to correspond (show consistency) only when the consequences of each type of behaviour are identical, i.e. when one makes no discrimination between the two classes of behaviour or their consequences (Zimbardo and Ebbesen 1970: 92) [1]. If the term 'attitude' is used at all in this framework, it refers either to evaluative verbalisations or to the consistency of overt behaviours over time. The difference in perspective has immense implications for behavioural technology in general and for the modification or maintenance of consumer behaviour in particular. While the cognitive learning paradigm includes the assumption that the internalisation of a persuasive message which modifies cognitive, affective and conative processes is a necessary precursor of behavioural change, behavioural learning theory is concerned with providing the reinforcements required to ensure the repetition of choice behaviour through such means as shaping or modelling (Skinner 1978: 163-70; Staats 1975). While cognitive learning approaches predominate in marketing research, Kassarjian (1978) suggests that the behavioural learning perspective be re-examined in consumer research and some of the implications of this approach have been pointed out by Nord and Peter (1980) and Rothschild and Gaidis (1981). However, while the explanations provided by cognitive psychology and behaviourism differ profoundly, each is consistent with an extant view of how marketing works and each suggests distinct prescriptions for managerial action. Research evidence for their appropriateness in marketing is scant but the following section draws upon recent developments in the social psychology of attitudinal-behavioural relationships in order to resolve the dilemma.

EMPIRICAL EVIDENCE AND ITS INTERPRETATION

Although it is not possible to establish or refute a scientific paradigm by direct empirical investigation, normal science proceeds within an acceptable framework precisely because it is believed to be consistent with or 'explain' the available evidence and to provide a logical structure for the conduct of research. Paradigm-shift takes place when new results which cannot be interpreted within the existing paradigm lead to the adoption of a new framework. The empirical evidence gathered in the investigation of assumed attitudinal-behavioural relationships constitutes a considerable volume of knowledge. In order to assess the
extent to which the cognitive and behaviourist paradigms respectively account convincingly for this evidence, it is necessary to derive conceptions of 'attitude' from each and from them to extract criteria by which the empirical evidence can be judged and interpreted.

In their influential paper on the scientific status of 'attitude', DeFleur and Westie (1963) distinguish the probability conception (PC) from the latent process conception (LPC) of attitudes. The first is concerned with the consistency of attitudinal responses; it infer that a set of responses to a particular attitude object may exhibit consistency and thus predictability. Probability definitions 'anchor the attitude concept to observable events ... The attitude, then, is an inferred property of the responses, namely their consistency. Stated in another way, attitude is equated with the probability of recurrence of behaviour forms of a given type or direction' [2]. The latent process view goes beyond the observation of response consistency by positing an intra-personal function or process which mediates responsive behaviour, causing or, at least, acting upon it to shape and guide it. 'That is, the observable organisation of behaviour is said to be "due to" or can be "explained by" the action of some mediating latent variable. The attitude, then, is not the manifest responses themselves, or their probability, but an intervening variable operating between stimulus and response and inferred from the overt behaviour. This inner process is seen as giving both direction and consistency to the person's response' (DeFleur and Westie, 1963, p.21). Each of these conceptions has peculiar implications for the question of attitudinal-behavioural consistency. The LPC leads, logically and directly, to the expectation of consistency between 'verbal' behaviour and 'overt' behaviour, both of which are responses which, if directed towards the same object, ought to be consistent since the identical latent process mediates them both. The stable underlying mechanisms postulated by LPC theorists which depicts attitudes as changing, if at all, only extremely slowly and resistantly, cause all classes of response to the objects to which they refer. Thus, attitudinal-behavioural consistency is a hallmark of the LPC approach. In the case of the PC, however, consistency is a question of nothing more than empirical observation, a matter of determining, by relatively straightforward measurement, the probabilities of the occurrence of various classes of response in given circumstances. Observed inconsistency poses no problems of theory, conceptualisation or method since the verbal and overt responses belong to different classes of response, each occurring according to its own set of situational contingencies.

While the LPC has its origins in cognitive psychology whose adherents suppose that overt behaviour is predictable from antecedent, intrapersonal states, the PC makes no such
attributions of intervening mental processes since it belongs to the behaviourist paradigm (Alexander, 1966-7). As such it does not infer simple consistency of attitudes and behaviour or classes of behavioural response regardless of situations and the reinforcement contingencies which inhere within them. The problem of interpreting the empirical evidence and assessing its consequences for cognitive and behaviourist paradigms is overcome by the recognition that the LPC requires fundamental attitudinal-behavioural consistency regardless of situational mediation. If the LPC is valid, therefore, it is to be expected that variance in attitudinal variables alone will 'explain' (in the statistical sense) all the variance measured in appropriate behavioural variables. While total explanation is not to be expected in the statistical exercises which are appropriate to this type of testing, very high correlations between verbal statements ('attitudes' or 'opinions') towards objects and behaviour should be found if both are mediated by the same underlying 'true attitude' or latent process. The more necessary it becomes to add explanatory variables in regressions of attitude on behaviour, the less satisfactory is the LPC explanation of attitudinal-behavioural relationships. As situational and other contextual variables are required in larger measure to account for patterns of behaviour, a PC of attitude becomes increasingly appropriate.

Attitudinal-Behavioural Consistency

The expectation that attitudes constitute 'precursors of behaviour, ... determinants of how a person will actually behave in his daily affairs' (Cohen, 1964: 138) remains strong, as the persistence and prevalence of the LPC attest. Even Lapierre's (1934) vivid demonstration that verbal statements of intention or willingness to act in a particular way (in this case, refusal to accommodate a Chinese couple in an American hotel or restaurant) can fail dramatically to covary with actual behaviour (the verbal statements were not sought until the couple had experienced overwhelming success in being so accommodated), has not expunged this expectation, though it has given social psychologists and sociologists much to 'cogitate' upon and explain. Failure to do so adequately did nothing to stem the tide of empirical research directed towards the practical demonstration of attitudinal-behavioural consistency. A critical review of a portion of the ensuing literature, published by Wicker (1969) sums up the disappointment of most attitude-behaviour researchers during the late 1960s and early 1970s. Wicker examined 46 empirical studies of attitudinal-behavioural consistency in which individuals were the chosen unit of observation, at least one attitudinal measure and one temporally-separate behavioural measure towards a common object was made of each subject, and overt behaviour was not
measured simply through the subjects' postbehavioural, oral self-report; studies of attitudinal and behavioural dynamics and their relatedness were excluded. Wicker's conclusions could not be more devastating for the notion of attitudinal-behavioural consistency conveyed by the LPC:

'Taken as a whole, these studies suggest that it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviours than that attitudes will be closely related to actions. Product-moment correlation coefficients relating the two kinds of responses are rarely above 0.30, and are often nearer zero. Only rarely can as much as 10 per cent of the variance in overt behavioural measures be accounted for by attitudinal data. In studies in which data are dichotomised, substantial proportions of subjects show attitudinal-behavioural discrepancies. This is true even when subjects scoring at the extremes of attitudinal measures are compared on behavioural indices.' (Wicker 1969: 76)

Wicker's review also failed to establish the existence of a predictable pattern of causation between the attitudinal and behavioural variables: six studies indicated that when measures of overt behaviour or behavioural commitment preceded measurement of attitude, attitudinal-behavioural consistency was greater than when the procedure was reversed but four others demonstrated inconsistency.

Wicker's review cast gloom on contemporary social psychology and consumer research which were firmly based upon the belief of a demonstrable relationship. Some members of both disciplines clung to the need to find attitudinal-behavioural links (see Lunn 1971), while others were prepared to dispense altogether with the concept of attitude (cf. Abelson 1972). It is superficially surprising, in view of this, to find that reviewers of the attitude-behaviour literature from the mid-1970s onwards present a very different state of affairs. A much greater spirit of optimism is apparent in these accounts (see, for instance, Kiesler and Munson, 1975; Schuman and Johnson, 1976; Ajzen and Fishbein, 1977; Eagly and Himmelfarb, 1978; Cialdini, Petty and Cacioppo, 1981). Schuman and Johnson (1976, p.199) conclude, for example, that 'Our review has shown that most A-B (attitude-behaviour) studies yield positive results. The correlations that do occur are large enough to indicate that important causal forces are involved.' And Seibold (1980, pp.213-14) notes the moderate to strong correlational consistency indicated by numerous empirical studies concluded since the publication of Wicker's review.

The reasons for this transformation are not difficult to find, however. Wicker himself pointed out that most
investigators of supposed attitude-behavioural consistency argue that factors other than attitudes impinged on the measured behaviour and must, therefore, be considered when the behaviour is forecast. Personal factors which include other attitudes, competing motives, verbal, intellectual and social abilities, and situational factors such as the actual or assumed presence of certain people, normative prescriptions of proper behaviour, alternative available behaviours (i.e. lack of opportunity to perform the 'requisite' behaviour), inspecificity of attitude objects, unforeseen extraneous events and the expected and/or actual consequences of various acts, have been adduced as 'explanations' of attitude-behavioural consistency. In addition, methodological factors have been identified as contributing to the early disappointment in the empirical search for consistency (Gross and Niman, 1975; 366-7). The selected attitude measure, behavioural criterion and the circumstances in which the behavioural criterion is measured may contribute to the collection of inconsistent data which may or may not reflect actual behaviours (Tittle and Hill, 1967), as may lack of ease in establishing test reliability, item difficulty, category width and the association of relevant attitudes and behaviour (Kiesler, Collins and Miller, 1969).

The optimism of psychologists who have, more recently, reported and reviewed relatively high levels of attitude-behavioural consistency derives, according to Seibold, (1980: 211), from research which has identified and specified the relationships between circumstantial factors and measured levels of attitude-behavioural consistency.

The demonstration of consistency between verbal responses ('attitudes') and overt behavioural responses is possible only because researchers have dropped the assumption that intrapersonal, 'true' attitudes mediate both responses and have demanded situational correspondence between the circumstances under which attitudinal and behavioural measurements occur. Ajzen and Fishbein (1977: 889-92) argue that attitudinal and behavioural phenomena comprise four elements: the action, the target of that action, the context within which the action occurs and the time at which it takes place. Correspondence between the attitudinal prediction and the behavioural criterion depends upon the degree to which the attitudinal entity matches the behavioural entity in these four elements. Consistent strength in the relationship between an individual's attitude and behaviour occurs when both are directed towards an identical target and both refer to the same action. (Ajzen and Fishbein's review concentrates on these two elements of correspondence because so few investigations provide data with respect to the other two). Their results for th 142 studies of A-B relations reviewed indicate clearly that where correspondence is low, so is the correlational consistency between attitudes and behaviour (verbal and overt classes of response).
'Other Variables' and the Control of Behaviour

Even current exponents of the LPC concede that 'Behaviours are a consequence of personal, social and environmental influences, and attitudes are but one of the factors affecting action'; moreover, situated action must be treated in terms of 'specific configurations of those influences' or 'other variables' (Seibold 1980: 221). The accommodation of these 'other variables' into models of attitudinal and behavioural responses owes much to the methodological development and empirical work of Fishbein (1967). While it was originally derived from the theory of propositional control (Dulany, 1968) and has much in common with the version of expectancy-value theory originated by Rosenberg (1956) the Fishbein model, from its inception to its most recent theoretical elaborations (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980), has played a distinct role in the study of attitudes and behaviour. Fishbein defines attitude solely in terms of affect (or overall evaluation), defining cognitions in terms of the beliefs of which attitudes are a function and conation as the behavioural intentions which mediate and approximate overt behaviour and which are a function of attitudes towards performing a behavioural act in a specific situation plus the actor's normative beliefs about the social expediency of performing the act as activated by his motivation to comply with the norms as he perceives them. Attitude towards the act is expressed as an expectancy-value model.

Neither behavioural intention nor behaviour is viewed simply and exclusively as a function of attitude, however. The effects of social environment on behaviour are accounted for in the behavioural intentions model by the individual's expectations that a specific reference group's members expect him to behave in the particular way underinvestigation (his normative belief).

For applied researchers, the crucial test of the model's usefulness is the ability of behavioural intentions measures to predict behaviour. Ajzen and Fishbein (1973) report a number of correlations of behavioural intentions and behaviour obtained by themselves and other researchers (see also Fishbein and Ajzen 1975; Ajzen and Fishbein 1980). The range of correlation coefficients obtained is wide (from r = 0.2 to r = 0.9) but investigations which employ the Fishbein approach predict behaviour more accurately than those reviewed by Wicker (1969) or Mostyn (1978). These more encouraging results derive directly from the restrictions and qualifications placed upon the definition and measurement of attitudes and behaviour - measurement of attitude towards the act, the establishment of correspondence and, above all, the measurement of attitudes as the immediate precursor of the action to which they relate. As Fishbein concludes: 'Clearly the time has come to stop
worrying about consistency and to start worrying about those factors that control behaviour'.

In summary, Fishbein's approach draws welcome attention to the fact that factors which control behaviour are, themselves, highly situation-specific and non-attitudinal factors which control behaviour are taken into account by the two major determinants of behavioural intention (attitude towards the act and subjective norm) which constitute the intentions model, and do not require separate measurement or incorporation into the regression equations shown above. All of the factors which Wicker (1969) lists (see above) as 'other variables' which explain attitudinal-behavioural inconsistency in particular instances are thus taken into consideration by the model but it is especially interesting in the context of the debate over the appropriateness of the behaviourist paradigm to note that, of these other variables, 'the expected and/or actual consequences of various acts may be the most fundamental of the situational factors ... since most of the others can be subsumed within it. For example, it can be argued that the presence or absence of certain people, and norms prescribing proper behaviour are ones which help to define the contingencies in a particular situation .... Also it may be that the more similar the stimuli to which verbal and overt behavioural responses are made, the more likely it is that the same contingencies will exist for a favourable or unfavourable response and thus consistency would result' (Wicker, 1969: 75). This is entirely consistent with the behavioral learning theory approach to verbal and overt responses. While the 'other variables' approach does not negate the expectation that attitude measures help explain behaviour, most empirical evidence of the last decade or so leads to conclusions about the nature and determination of behaviour which are a far cry from the conclusions of the LPC school (Seibold, 1980). Fishbein and Ajzen's theory of reasoned action is based upon the frequently-substantiated finding that an individual's behaviour is predictable from his 'beliefs about the consequences of performing a particular behaviour in a given situation', the way in which he evaluates these consequences, social norms which prescribe 'correct' behaviour in that situation and his (learned) motivation to exhibit 'correct' behaviour (Fishbein, 1967: 488-9). All of the determinants of behavioural intention and, therefore, of behaviour itself are situationally-modified; the relative importance of attitude towards the act and subject norm in any particular behavioural prediction is itself determined by the nature of the behaviour in question, the contextual conditions specified for its performance and the personal characteristics of the individual (see also Wicker, 1971).

Fishbein's conclusions about the timewasting nature of the simplistic search for attitudinal-behavioural consistency
are borne out by research in social psychology which demonstrates that reference group influences have both a moderating effect upon attitudinal factors and an independent effect upon the control of behaviour (Schuman and Johnson, 1976: 186-9). There is, moreover, evidence that relevant past behaviour can account for a significant amount of variability in present behaviour which is not mediated by behavioural intentions (see the recent review by Cialdini, Petty and Cacioppo, 1981: 869). Even the strongest proponents of the LPC (e.g. Seibold, 1980) fully recognise the effects of non-attitudinal variables on behaviour, thereby adopting a position which deviates considerably from the rigorously-defined LPC view which postulates that verbal and overt behaviours are mediated by the same latent process and should, therefore, exhibit consistency irrespective of situational factors. Since simple attitudinal-behavioural consistency, where it exists at all, is extremely weak, it is difficult to conclude other than that the notion of an underlying, 'true' attitude has been discredited and that social constraints explain behaviour successfully to a degree that makes not only the strict LCP but any conception of behavioural determination which attaches importance to the mediating role of pre-behavioural, mental processes inaccurate, untrustworthy and irrelevant. A conclusion which must surely be drawn from a review of the effects of 'other variables' upon behaviour is that these variables constitute the mediating factors upon which response patterns depend. As DeFleur and Westie (1963: 27) put it, 'A latent something interposed between attitudinal-behavioural patterns and the social variables which mediate them is simply unnecessary'.

Consumers' Intentions and Behaviour

Evidence for the usefulness of the Fishbein model in the prediction of brand choice is equivocal for reasons which are directly related to the consistency of consumers' attitudes, intentions and behaviours. Several investigators have found evidence of high intentions/choice correlations using the Fishbein model; a typical example is the work of Wilson, Matthews and Harvey (1975). These authors report an attempt to predict consumers' selection of toothpaste brands from their behavioural intentions: 85 per cent of respondents selected the brand which they had expressed an intention to 'buy' in an experimental context. That verbal and nonverbal responses concerned identical brands and the time lapse between the responses was very short raises the question of how far consistency was due to the investigator's continued presence (see also Schuman and Johnson 1976: 172-3) and other elements of situational correspondence. Even non-laboratory investigations have often involved the performance of behaviour soon after, concurrently with or even prior to the measurement of inten-
tions (see, for instance, Harrel and Bennet 1974). Where a greater time lapse has occurred between the expression of intentions and the performance of behaviour, much lower correlations have resulted: the average in a series of British and American studies reviewed by Ryan and Bonfield (1975) was 0.435 which adds weight to Schuman and Johnson's (1976) argument that intentions are generally inchoate until an opportunity for action presents itself. In their study of loan applications at a credit union, Ryan and Bonfield (1980) discovered a correlation of 0.33 (p. <0.001) between intentions and behaviour, a result which reflects their avoidance of laboratory, pencil-and-paper approaches. These results are in harmony with Fishbein's claims for his model to the effect that high correlations are possible only under maximally-conducive conditions including the measurement of intentions immediately prior to the performance of the corresponding behaviour (Fishbein 1973). This renders Fishbein's model of limited value in much commercial consumer research where brand choice intentions are often necessarily measured well before opportunities to purchase are available. Situational interventions between the expression of intentions and the selection of a brand are clearly responsible for the inaccuracy of so many marketing research predictions (van Raaij 1981: 11) especially those concerned with the introduction of new products (Tauber 1981). In recognition of this, Engel et al (1978: 403-4) argue that various anticipated and unanticipated circumstances affect intentions and warrant inclusion in the model as a third predictor of behavioural intention and behaviour. Sheth (1973) has made similar arguments and has included such circumstances in an alternative model. Unexpected interventions can always modify intentions, however, and compromise attempts at forecasting long-term behaviour. Ehrenberg and Goodhardt (1980a:12-19) go so far as to argue that their measures of behavioural intention reflect past buying behaviour and usage. The overwhelming impression gained from this work is that situational rather than intra-personal factors mediate behaviour. Whether or not measures of behavioural intention constitute trustworthy estimates of behaviour depends upon the coincidence of reinforcement contingencies in the situation in which brand purchase occurs. There has recently been increased emphasis upon the situational mediation of consumer behaviour (Belk 1975, Lutz 1981, Kakkar and Lutz 1981, Foxall 1983). Studies of consumers' attitudes increasingly involve situational factors (e.g. Bearden and Woodside 1976) and more stress is nowadays placed upon the effects of product trial and, in particular, the consequences of the reinforcement of trial and its consequences for repeat buying (e.g. Olson and Dover 1979). At the same time, there is increasing criticism of the cognitive information processing perspective on 'consumer decision-making' (Olshavsky and Granbois 1979) while the application to marketing of Bem's (1965, 1967,
self-attribution theory offers both a behaviouristic explanation of post-behavioural attitude change which has so often been described in only cognitive terms (Festinger 1957) and an alternative theoretical perspective for the modification of consumer behaviour (Scott 1976, 1981, Dodson et al 1978), Tybout 1978). Within the context of advertising and consumer behaviour, moreover, Ehrenberg and Goodhart (1979: 14-20, 1980b: 3-5) have presented a 'weak' theory of advertising which is consistent with the emerging, behaviour-based paradigm. Consumer behaviour may, they argue, be described in terms of three stages; awareness, trial and reinforcement (ATR). Advertising is certainly necessary to create awareness and the curiosity that engenders trial but repeat purchase depends largely upon whatever positive experiences the consumer derives from the use of the brand during the trial phase. Advertising acts also to reinforce whatever satisfaction the customer obtains but it is not unique even here. Only after consumer behaviour has occurred is an informed brand attitude likely to develop. Once more, the emerging emphasis is upon behaviour, its reinforcement and their implications for future behaviour rather than upon intrapersonal information processing. This emphasis is well supported, however, by recent research on blood donating (Bagozzi 1981a, 1981b, 1982) where behaviour is found to be predicted more accurately by knowledge of past behaviour in similar contexts than by attitudinal (verbal report) data. The evidence reviewed in this section on the social psychology of attitudinal-behavioural consistency confirms the trend towards a less mentalistic, more behaviouristic consumer research paradigm. The final section of the paper discusses the implications of this trend for consumer research, marketing management and academic marketing.

CONCLUSIONS

Implications for Consumer Research

It is evident that verbal behaviour is likely to be predicative of overt action only to the extent that both occur in identical situational contexts. Research has demonstrated, for instance, that where signing a petition while standing on one's own doorstep is the overt behaviour in question, the appropriate physical situation for the recording of corresponding behavioural intentions is the same doorstep (Silverman and Cochrane 1972) and that when students' volunteering to take part in experiments is the overt response, the higher behavioural consistency is found when the intention to volunteer is recorded in the same setting (Norman 1973). The achievement of a corresponding degree of consistency in consumer research would require the recording of consumers' intentions in the same physical/geographical situations in which buying takes place, e.g. supermarkets,
rather than in the home. Closely related to this is the measurement of attitudes and behaviours at the same level of specificity, i.e. in ways which fulfil the requirements of attitudinal-correspondence identified by Ajzen and Fishbein (1977: 889, see also Tittle and Hill 1967; Fishbein and Ajzen 1975, 1980; Mostyn 1978: 71).

In general, consumer researchers' enthusiasm for attempting to predict customer choice by reference to buyers' supposed inner latent processes can be replaced to advantage by the attempt to predict situation-specific behavioural responses of one kind (say, brand choice) from knowledge of corresponding situation-specific behaviours of another type (say, verbal expressions of intent). This may lead to the adoption of a research paradigm in which situational factors, and especially the contingencies of reinforcement which inhere in them, are studied directly. Little is known of the reinforcing effects of incentives of various type and magnitude (Scott 1976: 267), the relative effectiveness of primary versus secondary reinforcers and of various schedules of reinforcement in the consumer behaviour context (Rothschild and Gaidis 1981: 74). Under what contingencies of reinforcement do incentives provoke trial and enhance the probability of repeat buying? How can reinforcement contingencies be arranged in order to increase the effectiveness of shaping techniques? Do shaping and modelling depend upon the degree of subject involvement? It is obvious that these empirical questions can be answered only by direct experimentation.

Managerial Implications

The treatment of attitude as a property of behaviour, i.e. its consistency, has several important consequences for managerial action. In place of the depiction of behavioural change as a function of prior information processing and mental change, consumer behaviour must now be understood as a sequence of brand trial which occurs in a context of uncertainty and curiosity rather than preference and conviction, followed by the reinforcement of the purchase partly through communication but primarily as a result of the consequences of purchase and use. This accords generally with Krugman's (1965, 1977) conclusion that, at least in the case of televursively advertised consumer brands, consumer involvement is minimal and behavioural change is necessary before the formation of attitudes (see also Ray 1973). Robertson (1976) proposes that consumers are involved in a much smaller amount of pre-purchase information search than has hitherto been assumed, that trial is the most important means of brand evaluation, that little pre-trial learning is apparent and that any hierarchy of effects process is simplistic and contractual (see also Kassarjian 1981). The main implication for marketing management is that greater

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emphasis should be placed upon the selective use of coupons, samples and money-off offers as shaping devices which encourage consumers to adopt brands as a result of a series of approximations to the desired behaviour. At present there is evidence that such techniques are inadequately used (Scott 1976, 1981) but improvement necessarily waits upon the execution of the types of consumer research outlined above. (For a more comprehensive treatment, see Foxall 1983).

Paradigmatic Implications

DeFleur and Westie (1963: 29-30) argued for the refinement of the concept of attitude by the elimination of intervening or latent variables and by the operational definition of attitude in terms of behaviour. The evidence provided by empirical research into attitudinal-behavioural consistencies during the last two decades supports the active incorporation of a more behaviour-based paradigm into consumer research. Indeed, the inescapable conclusion of the analysis presented in this paper is that the cognitive approaches to the study of consumer behaviour which have predominated for so long now have an alternative, compelling paradigm. The greater the emphasis placed upon probability concepts of attitude and the more extensive the recognition of the limitations inherent in the LPC, the more valuable will behavioural learning perspectives become. This is not to imply that the latter will replace the former but that consumer researchers are bound to employ an eclectic approach, perhaps confining the behavioural learning paradigm to the study of low involvement behaviours while retaining the cognitive learning paradigm for the investigation of high involvement consumer choice. The former undoubtedly includes the vast majority of routinised consumer purchase situations while the latter may include such infrequently encountered situations as the purchase of a new brand in a new product class which call for extended problem-solving (Howard 1977).

The extent to which a more behaviour-based paradigm is of use in consumer research can only be determined through empirical work. The extent to which a behaviour modification paradigm can be created for consumer research which admits emotional and physiological influences on action also remains to be decided. The rewards and minor 'punishments' meted out to consumers may prove to be too small and insignificant to make a behaviour modification programme universally relevant and applicable. This paper has pointed to the work to be done in this direction in view of the inadequacies of the cognitive paradigm. Clearly, it has not argued that only a rigorously behaviourist perspective can service consumer research. Nevertheless, at the very least, the time has come for researchers in marketing to recognise
that the 'emperor' of cognitive psychology can no longer be considered fully dressed.

NOTES

1 It might be contended that the cognitive paradigm is not limited to the use of verbal reports since other means of measuring internal processes, e.g. physiological recordings and response latency, are in widespread use. The focus of this paper upon attitudinal-behavioural relationships in marketing practice is responsible for its emphasis upon verbal data; such data provide, moreover, the least ambiguous platform for both cognitive and behavioural investigations.

2 The term attitude would thus describe an individual's behaviour (in terms of its consistency) rather than refer to its assumed mental precursors. To say that an individual had a strong attitude towards an object would mean that he behaved consistently positively towards it under known circumstances. As long as the contingencies of the situation in which this consistent behaviour had been noted were maintained, similar behaviour could be expected in future as the opportunity to act arose.
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