THE CORRESPONDENCE BIAS: A ROBUST PHENOMENON?

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ABSTRACT

The primary aim of this study was to identify variables which may attenuate or eliminate the effect of the correspondence bias. A secondary aim was to identify aspects of the research paradigm which may encourage subjects to commit the bias. The quiz game paradigm developed by Ross, Amabile & Steinmetz (1977) was employed. The study examined the effect of origin of questions and number of questions correct on observers' ratings of a questioner and contestant's general knowledge ability. The subjects were 100 university students randomly assigned to one of four conditions. The combination of questions supplied and six questions correct condition eliminated the bias. Open ended questions were also employed to identify factors that encouraged subjects to commit the bias. The results of the study indicate that subjects utilised a number of normally appropriate strategies to judge general knowledge ability. Weaknesses of the study are outlined, as are implications of the study and recommendations for future research.

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CHAPTER ONE

THE CORRESPONDENCE BIAS: INTRODUCTION

Studies investigating the correspondence bias have developed within the framework of attribution theory, in response to the Jones and Davis (1965) theory of correspondent inference. The correspondence bias is defined as: "the tendency for attributors to underestimate the impact of situational factors and to overestimate the role of dispositional factors in controlling behaviour" (Ross, 1977, p. 183). The bias has evoked considerable interest and research since its initial demonstration leading Quattrone (1982a) to describe the effect "as robust and reliable a phenomenon as any in the literature on person perception" (p. 376).

The purpose of the present study is to identify variables which may attenuate or eliminate the effect of the correspondence bias. A secondary aim is to identify aspects of the research paradigm which may encourage subjects to commit the correspondence bias, and examine the findings of the research in view of how they fit with the current literature.

This chapter provides an overview of the theory of correspondent inference, followed by a summary of the initial study conducted to test the theory, the results of which provided the first evidence of the correspondence bias. The major theoretical models developed to explain the correspondence bias are also reviewed.

ATTRIBUTION THEORY

Historically, attribution theory originated from the broader, and more general area of person perception. The desire to answer questions such as how individuals perceive the characteristics and intentions of others, and how various schemata and stereotypes

influence people's first impressions, has seen the field of person perception grow rapidly since the 1940's (Bierhoff, 1989). The mutually interdependent nature of human beings highlights the importance of the perception process in trying to understand what other people are like, thus enabling people to plan, negotiate and interpret the numerous social interactions encountered daily.

Simply stated, attribution is the study of 'the factors involved in perceived causation' (Harvey & Weary, 1984; Kelley & Michela, 1980). Attributional processes are those that direct a perceiver's attention to, thoughts about and understanding of perceived 'events' (Shaw & Costanzo, 1970, 1982). Attribution theory is concerned with what Heider (1958) called 'naive psychology' or the 'commonsense' cause-effect analysis of behaviour made by the layperson. Heider advanced two propositions:

1. Interpersonal relations are mainly a function of people's interpretations of others in the social world.

2. People are motivated to understand the events they observe by attributing them to enduring dispositions of the actor, and/or to stable properties of the environment.

It is this distinction between the dispositional and situational causes of social behaviours that provides the key conceptual dichotomy of attribution theory. Jones and Davis who have extended Heider's seminal work, also distinguish between causal factors which are internal, versus those external to the actor.

THEORY OF CORRESPONDENT INFERENCE

The theory of correspondent inferences advanced by Jones and Davis attempts to explain a perceiver's inferences in response to an actor's behaviour. It is presumed that the perceiver observes the overt action of an individual. If the preconditions of

necessary ability to perform, and the knowledge of the consequences of the action are met, intention can be inferred, and then used to judge the actor's stable dispositions (Jones & Davis, 1965; Kelley & Michela, 1980; Shaw & Costanzo, 1982).

Jones and Davis use the term correspondence, to define the extent to which an action and the underlying attribute are similarly described by the inference. Correspondence is formally defined as "Given an attribute-effect linkage which is offered to explain why an act occurred, correspondence increases as the judged value of the attribute departs from the judge's conception of the average person's standing on that attribute" (Jones & Davis, 1965, p. 224). An act was loosely defined as a response that reflects choice on the part of the actor, and has one or more effects on the environment or actor, and effects were described as discriminable changes produced by actions (Jones & Davis, 1965).

Jones and Davis identified two aspects of the inference process, non-common effects and social desirability. An act can have one or more effects, and generally effects that are thought to be desired by most people are seen as likely to be desired by the actor. However, it is the acts which result in effects less desired than other courses of action which provide more information about an actor's intentions and dispositions (the non-common effects). Jones and Davis proposed therefore, that the fewer reasons an actor has for an action, and the less these reasons are shared by others, the more informative the action is in identifying the dispositions of the actor (Jones & Davis, 1965; Shaw & Costanzo, 1982). Two levels of involvement, hedonic relevance and personalism, were also identified as influential in the perception process. That is, an action has hedonic relevance for a perceiver if it advances or interferes with the perceiver's goal, whilst, an action is personalistic if the perceiver believes that the action was intended to gratify or spite him/her. Thus, a condition of personalism and positive relevance would result in a positive evaluation of an actor, whilst personalism and negative relevance would result in a negative evaluation.

REFORMULATION

In 1976, Jones & McGillis reformulated the correspondent inference theory. This revision expanded the scope of the theory by providing two major contributions. Firstly, the definition of correspondence was expanded to include information gain generally, rather than dispositional inferences only. Supposedly, information gain aids the perceiver in understanding both the actor and the situation in which the action occurs. Correspondence was redefined as: "Given an attribute-effect linkage which is offered to explain why an act occurred, correspondence refers to the degree of information gained regarding the probability or strength of the attribute" (Jones & McGillis, 1976, p. 391). Secondly, two kinds of base-rate expectancies which allowed for a better calculation of assumed desirability were proposed. The first, category-based expectancy, relates to the perceiver's prior knowledge about members of a particular class, category or reference group.

Depending on an actor's category membership, particular behaviours are likely to be seen as more or less likely and/or desirable. The second, target-based expectancies, relates to the perceiver's prior knowledge about an actor. Both category and target-based expectancies are probabilistic rather than absolute expectancies.

TESTING THE THEORY

Jones and Harris (1967) conducted the initial studies to test Jones and Davis' correspondence inference theory. The subjects were provided with written or oral statements supposedly made by an unknown person, under free-choice versus no-choice conditions. Unexpectedly, the subjects made correspondent inferences even when told that the content of the statement was completely determined by the experimenter (no-choice condition). This bias had earlier been anticipated by Heider (1944). He claimed that although "changes in the environment are almost always caused by acts of persons in combination with other factors, the tendency exists to

ascribe the changes entirely to persons" (Heider, 1944, p. 361), and later altered to "behaviour engulfs the field" (Heider, 1958, p. 54). By 1977 sufficient evidence supporting "the tendency for attributors to underestimate the impact of situational factors and to overestimate the role of dispositional factors in controlling behaviour" existed for Ross to refer to the phenomenon as the "fundamental attribution error" (Ross, 1977, p. 183).

FUNDAMENTAL ATTRIBUTION ERROR OR CORRESPONDENCE BIAS?

The effect labelled the 'fundamental attribution error' by Ross, has also been referred to as the 'overattribution effect' by Jones (1979), and the 'correspondence bias' by Gilbert and Jones, (1986). In the past decade a number of researchers have claimed that it is incorrect to refer to the tendency to over-estimate the causal role of dispositional factors as either fundamental or an error (Fiske & Taylor, 1984; Fleming & Darley, 1989; Gilbert & Jones, 1986; Harvey & McGlynn, 1982; Harvey, Town, & Yarkin, 1981; Tetlock, 1985). The distinction between 'error' and 'bias' has stimulated considerable debate, which is outside the scope of this review. However, for the purposes of this study it is useful to provide a definition: a bias is "a tendency to prefer a given cognition (eg. dispositional attribution), over its possible alternatives (eg. situational attributions)" (Harvey et al. 1981, p. 348). An error, by contrast, is defined as an "inconsistency between a causal attribution and a proposition in which one is so confident that one deems it as a fact" (Tetlock, 1985, p. 228). Therefore the demonstration of an error would require the comparison of a given causal attribution to an accepted criterion. In many attribution studies this is not possible, therefore, in this study the more descriptive and less value-laden term correspondence bias will be adopted.

THEORETICAL EXPLANATIONS

Most accounts of the correspondence bias emphasize the cognitive processes which

orientate the perceiver to focus on the behaviour of the actor rather than the situation (Miller, Schmidt, Meyer, & Colella, 1984). Early explanations were based on Heider's proposition that behaviour engulfs the field. That is, people tend to make dispositional attributes because they are the first to come to mind.

The Anchor Adjustment Model

The anchor adjustment model developed by Kahneman & Tversky (1973) and expanded by Jones (1979) and Quattrone (1982b), has been advanced to explain the correspondence bias. They propose that perceivers make dispositional inferences based on readily available and representative information. The dispositional inference then serves as a perceptual anchor while adjustments are made for any situational constraints (Nisbett & Ross, 1980). Unfortunately perceivers tend to overlook information concerning base-rates and prior probabilities when relying on availability and representative heuristics (Tversky & Kahneman, 1974), resulting in judgements which are overly correspondent.

More recently Gilbert and his colleagues have suggested that an inference may result from three distinct stages of information processing (Gilbert & Krull, 1988; Gilbert, Krull, & Pelham, 1988; Gilbert & Osborne, 1989; Gilbert, Pelham, & Krull, 1988). Firstly, categorization, where the perceiver identifies the actions of the actor. Secondly, characterization, where a dispositional inference is made concerning the actor's behaviour, and thirdly, correction, by adjusting for situational constraints. They suggest that the first and second stages are likely to be effortless, generally occurring without awareness. The third stage, however, requires a deliberate effort, which may easily be disrupted. For instance an observer having found a satisfactory explanation for a particular behaviour, may not bother expending the effort required to seek alternate explanations.

The preceding cognitive models attempt to explain the correspondence bias in terms

of information processing models. Research conducted to examine the way individuals process information has a relatively narrow focus and in some respects is quite misleading (Funder, 1987; McArthur & Baron, 1983; Swann, 1984; Wright & Dawson, 1988). It is important to consider whether an adequate understanding of person perception can be gained by examining small samples of behaviour in a laboratory setting, and then attempting to generalize the findings to everyday situations.

By removing perceivers from their everyday social environments, it is likely that the goals perceivers normally pursue, and the behavioural mechanisms through which they usually pursue them will be overlooked (McArthur & Baron, 1983; Swann, 1984). Rather than emphasizing the 'how' of person perception, other researchers have focussed on the 'what' of the perception process.

The Pragmatic Approach

Swann argues for a pragmatic approach to person perception, claiming that at the most basic level perception enables perceivers to attain their interactional goals (Kelley, 1979; Swann, 1984). Subsequently, perceivers are more likely to be concerned with whether their beliefs and judgements are true for them, rather than whether they are true in general.

The implication of such an approach is that the previous models may be limited because they assume that perceivers form beliefs which are highly generalizable - global accuracy. Although there are times when generalizable beliefs are appropriate, this is generally not the case. Perceivers are more likely to be concerned with predicting the behaviour of target individuals within particular circumscribed conditions - circumscribed accuracy. Global accuracy is said to be high if it allows the perceiver to predict the behaviour of an individual in the presence of all the perceivers whom the individual encounters (transpersonal accuracy), within all the

situations that the individual enters (transcontextual accuracy), or over a fairly long period (extended accuracy). Circumscribed accuracy on the other hand is said to be high if it enables the perceiver to predict how an individual will behave in the presence of the perceiver only (personal accuracy), within a limited number of situations (contextual accuracy), and for a relatively brief period of time (brief accuracy). The accuracy that perceivers aspire to attain is largely determined by their interaction goals. The everyday perceiver often needs only to predict the behaviours of individuals within specific conditions, and will favour circumscribed accuracy. This is especially true if the perceiver - target relationship is shortlived. As a longer term relationship develops so will the interaction goals increase, from brief accuracy to extended accuracy (Swann, 1984).

The Bounded Rationality Model

Wright and Dawson (1988) agree that social judgements depend on the social environment, and argue that the environment is structured in ways that make it unnecessary for people to make judgements that would be consistent with normative models of decision making. That is, observers strive for their predictions of others to have adequate, rather than maximum accuracy. Thus, people's perceptions may be well suited to everyday social interactions, whilst being poorly suited to tasks created in the laboratory.

The Ecological Model

The pragmatic and bounded rationality models are closely linked to the ecological view, where social behaviours vary in importance depending on their adaptive significance, and therefore the ease in which they are perceived. The ecological position is not a unified theory of perception, rather it draws on several theories (Gibson, 1979; Shaw, Turvey, & Mace, 1982). Firstly, perception serves an adaptive function, by promoting individual goal attainment as well as species survival.

Secondly, behavioural units of information are seen as events which provide perceivers with structured information in addition to the information provided by static stimuli. Obviously, we use such information in our lives, however current research models do not provide descriptions of the stimulus information to which we are responding. Integral to the ecological approach is the emphasis on the active perceiver, and it is assumed that environmental stimuli will be more accurately detected when perceivers are able to actively explore. Thirdly, the usefulness of information depends on its relevance to the perceiver's actions and goals, that is, affordances of the environment. An affordance is defined by Gibson (1979), as "what it offers the animal, what it provides or furnishes, either for good or ill" (p. 127). Fourthly, there must be a match between an individual's receptor capabilities and the stimulus information to which he or she are perceptually sensitive. Such matches are not only limited to biological programming, but also include the 'education of attention' (Gibson, 1979). For instance, stimulus information may vary as a result of an individual's expectations, goals, prior learning and actions (McArthur & Baron, 1983).

An indication of the complexity of the phenomenon, is that at present, in spite of the many models advanced to explain the correspondence bias, considerable controversy remains concerning an adequate explanation (Fleming & Darley, 1989; Miller, Schmidt, Meyer, & Colella, 1984; Miller & Lawson, 1989).

CHAPTER TWO

LITERATURE REVIEW

A summary of the research paradigm developed by Ross, Amabile, & Steinmetz, (1977) is presented in this chapter to provide a background for the present study. A review of the literature follows, which indicates that the correspondence bias may be less robust than claimed by earlier researchers. Limitations of the Ross et al. (1977) paradigm are then discussed, and the variables identified whose investigation forms the basis for this study.

Evidence for the correspondence bias comes from research employing three paradigms. Subjects infer correspondent dispositions to the writers of essays supposedly written under high choice or no choice conditions (Jones & Harris, 1967; Reeder, Fletcher, & Furman, 1989); to laboratory partners who when directed by the subjects, read political statements generated by the experimenters (Gilbert & Jones, 1986); and to participants of a quiz game whose performance is determined by their roles (Ross, Amabile, & Steinmetz, 1977).

While any one of the three paradigms provides important opportunities for investigation, it is the least researched quiz game paradigm developed by Ross et al. (1977), that is the focus of the present study.

QUIZ GAME PARADIGM

Pairs of university subjects participated in a general knowledge 'quiz game', after being assigned to the role of questioner or contestant. The questioner was instructed to prepare ten challenging general knowledge questions to pose to the contestant. During the quiz, the contestant was informed by the questioner whether each answer was correct or incorrect. At the conclusion of the session, both participants (and in

a second experiment a pair of observers), were required to rate the questioners' and contestants' general knowledge ability relative to that of their peers.

Role effect was the variable investigated by Ross et al. (1977), and is defined as the superior ability attributed to the randomly designated questioner, compared to the randomly designated contestant by the observing subjects. The study was designed so that the participants were required to make inferences on the basis of two small samples of behaviour. The contestants and observers witnessed a highly biased sample of the questioner's general knowledge. Ten questions were drawn from information known by the questioner, but anticipated to be unknown to others. On the other hand, the questioner and observer had a reasonably unbiased sample of the contestant's ability to answer relatively difficult questions. The observers had an additional source of information, in that they shared the contestants' ability/inability to answer the questions.

The results demonstrated that the contestants rated themselves well below average, and their questioners well above average in general knowledge ability. The observers rated the contestants as average relative to their peers, but judged the questioners as having exceptional general knowledge ability. On the other hand, it appeared that the questioners were under no such illusions about themselves or the contestants. They were aware that the role they occupied gave them advantages in self-presentation. The gaps in their own knowledge were not apparent, while the role of the contestant made the display of ignorance inevitable. Thus, it is hardly surprising, that the questioners rated both themselves and the contestants as average.

Ross et al. (1977) claimed that the results supported Jones' and Nisbett's (1972) hypothesis that "there is a pervasive tendency for actors to attribute their actions to situational requirements", (pg.80) whereas observers tend to attribute the causes of behaviour to the dispositions of the actor.

Ross et al. (1977) concluded that by failing to make adequate allowances for the biasing effects of the questioners' and contestants' roles, the observers committed the correspondence bias. A further implication of the study was the claim by the researchers that in order for perceivers to make accurate social judgements, they must not only recognize, but also adequately correct for any presentational advantages individuals experience because of the social roles they occupy.

ROLES AND PERCEPTIONS

A role is defined as "the function a person performs when occupying a particular characterization (position) within a particular social context" (Shaw & Costanzo, 1970. p. 326).

It has been suggested that the failure of an observer to take into account the way that a role can act as a situational force, may bias information about an individual, resulting in inaccurate dispositional inferences (Deaux & Major, 1987; Kerber & Singleton, 1984; Srull & Wyer, 1979). Ross et al. (1977) refer in particular to relationships of unequal power and control that result in unequal opportunities for advantaged self-presentation. For example, a typical teacher-student relationship enables the teacher to display knowledge, authority and insight while concealing any deficiencies and denying any similar opportunities to the student.

Closely linked to self-presentational advantages or disadvantages, are normative role requirements and stereotyped expectations which can result in subsequent judgements of an individual being based on previously expected attributes (Darley & Fazio, 1980; Darley & Gross, 1983; Higgins & Bargh, 1987). Other investigators however, have claimed that perceivers do take into account information that is inconsistent with the initial schema (role) (Erber & Fiske, 1984; Fiske & Taylor, 1991; Neuberg & Fiske, 1987). It appears that when people use weak role categories such as occupations, the schema tends to be weakened by subsequent irrelevancies (Bodenhausen, 1988; Higgins & Bargh, 1987).

Generally, people appear to work along a continuum of impression formation processing, ranging from those which are schema or category based, to those which are attribute based. Consequently, attempting to gauge the accuracy of an individual's usage of schematic information in everyday life is problematic, as it is likely to depend on the particular situation (Fiske & Taylor, 1991: Higgins & Bargh, 1987). Undoubtedly, roles are an everyday feature of people's lives, and if the correspondence bias is as robust as it has been argued, there are social implications which require further study. Before investigating any role implications of the bias however, there are aspects of the Ross paradigm that should be investigated, and it is these that are the focus of the present study.

SUPPORT FOR THE BIAS

It has been widely accepted that the correspondence bias is both robust and generalizable across a variety of constraint manipulations (Davies, 1985; Gilbert & Jones, 1986; Gilbert, Pelham, & Krull, 1988; Johnson, Jemmott, & Pettigrew, 1984; Miller, Jones, & Hinkle, 1981; Miller & Rorer, 1982; Quattrone, 1982a; Ross, Amabile, & Steinmetz, 1977). Most reviewers of the literature have concluded that the correspondence bias represents significant shortcomings in how individuals typically ignore non-target person data, when processing information about others (Fiske & Taylor, 1984; Jones, 1979; Nisbett & Ross, 1980).

OPPOSING VIEWS

Advances in attribution theory and research techniques over the past fifteen years however, have produced studies which indicate that inividuals do process information in complex ways (Chaiken, 1980; Tetlock, 1983, 1985). Thus, in spite of the large number of studies which support the existence of the correspondence bias under conditions of situational constraint, an extensive examination of the literature indicates several exceptions (Fein, Hilton, & Miller, 1990; Funder, 1982, 1983; Funder &

Van Ness, 1981). It is increasingly apparent, that individuals do utilize non-target person data, when asked to make an inference (Higgins and Bargh, 1987). These include base-rate information (Ginossar & Trope, 1980; Hasher & Zacks, 1984); consensus information (Kassin, 1979); debriefing and discrediting information (Hui & Ip, 1989; Ross and Leper, 1980); and situational information (Quattrone, 1982b; Trope, 1986).

While it appears undeniable that in some circumstances, individuals do make biased inferences, the effect may not be as pervasive as once thought. There are numerous factors which operate to attenuate the magnitude of such an effect. Any interpretation as to the extent of the bias must remain tentative. This is due to the fact that the correspondence bias is only meaningful in comparison to some statistical or psychological model of its optimal or appropriate use, and there can be no certainty that currently accepted models are correct (Higgins and Bargh, 1987; Harvey, Town and Yarkin, 1981).

CRITICISMS OF THE QUIZ GAME PARADIGM

While the Ross et al. (1977) study is often cited as providing evidence of the correspondence bias, findings from one circumscribed paradigm should be considered cautiously as providing evidence of a general tendency for observers to attribute the causes of behavior to dispositional factors (Davies, 1985; Sumpton and Gregson, 1981). A closer examination of the study indicates that the results and interpretations may be somewhat misleading.

Generalizability

Sumpton and Gregson (1981) argue that if the correspondence bias represents a general tendency to attribute the causes of behaviour to dispositional factors at the expense of situational constraints, one would expect the effect to be generalizable to

other areas of knowledge. This does not appear to be the case. When Sumpton & Gregson extended the original paradigm they found that the ratings of questioners' and contestants' general knowledge ability supported the findings of Ross et al. (1977). However, when asked to rate the questioners' and contestants' ability, on areas of knowledge not covered in the quiz the ratings were almost identical. The subjects were apparently not influenced by the role-conferred advantages or disadvantages of the questioners and contestants, which led Sumpton and Gregson to claim that the results of the original Ross et al. (1977) study were artifactual. The question arises then, if the subjects were not influenced by the role constrained information, on what basis did they make their ratings?

General Knowledge Ability

Abilities, unlike other personal dispositions (traits) are usually defined consensually (Nisbett and Ross, 1980). Consequently, when asked to rate the questioners' and contestants' general knowledge ability, the subjects' attributions were dependent on a previously learned social skill. That is, the ability to recognize 'differential task performance', defined by Block & Funder (1986) as "the recognition that better performance ordinarily implies greater ability" (p. 1201). This suggests an alternative to the interpretation proposed by Ross et al. (1977).

Firstly, the contestants correctly answered a mean of four out of the ten questions posed by the questioner. The subjects were university students who had spent years in the education system, where pass and fail rates are determined by the magic 50% mark. Given that criteria, 40% success can justifiably be viewed as falling below average. Presumably if the contestants were seen to answer more than five questions correctly it is likely that the observers would rate their general knowledge ability accordingly.

Secondly, the questions posed to the contestants were difficult, so the hypothesis that

the questioner was above average in general knowledge ability was somewhat justified (Block & Funder, 1986; Higgins & Bargh, 1987). Support for this interpretation of the Ross et al. (1977) study, can be seen in a key result of the study. Female subjects unexpectedly asked far more difficult questions, and received fewer correct answers from their partners than did the male subjects. As would be expected, the correspondence bias was greater in the case of the female subjects. Such results raise doubts about claims that the results of the study were due solely to the role effect.

Origin of Questions

Closely related to the issue of difficulty of questions is the origin of questions. It can be assumed that if the observing subjects' ratings of the questioner and contestant are influenced by the difficulty of the questions, a study where the questions are supplied by the experimenter should result in a reduction of the magnitude of the correspondence bias. Studies investigating this variable have produced conficting results, thus origin of questions will be investigated in the present study.

In an experiment conducted by Davies (1985), subjects were assigned to one of three experimental conditions: questions generated; questions supplied or questions discredited conditions. When the subjects were told before the quiz that the questions had been supplied they did not commit the correspondence bias, whereas when they were told after they had participated in the quiz that the questions had been supplied (the discredited condition) the bias was still evident but not of the same magnitude as seen in the questions prepared condition.

A similar study by Hui and Ip (1989) investigated the effect of question preparation and false feedback on the magnitude of the correspondence bias. During the question preparation time half the contestants were either asked to prepare questions as a warm up exercise or were given a task unrelated to the quiz game. On completion of the quiz, one third of the subjects were informed that the questions had been supplied by

the experimenter (discrediting condition), one third were told that the contestant's performance was superior to the questioner in a subsequent written quiz (counter-information condition), and the remaining subjects were told nothing. The results indicated that neither the question preparation task nor the discrediting of information affected the results. The provision of counter-informaton however, did result in a reduction of the correspondence bias.

The results of the Davies study appear to support the suggestion that subjects may be influenced by the difficulty of questions asked by the questioner. When the subjects knew before the quiz game that the questions had been supplied they ignored the biased role information. The fact that the bias was still evident (albeit with reduced magnitude) when the subjects were told after the quiz game that the questions had been supplied, reveals the subjects' susceptibility to the perseverance phenomenon. It is widely accepted that initial information is very difficult to discredit by false feedback information, be it a belief in the difficulty of the questions or an erroneous belief in the questioner's superiority based solely on the presentational advantages of her role. (Anderson, Lepper, & Ross, 1980; Anderson & Sechler, 1986).

Implicit Experimental Demands

An issue raised in a number of recent attribution studies, is the suggestion that there are considerable situational pressures operating on subjects in the questioner-contestant, (and other attitude-attribution) paradigms, to use the information provided diagnostically (Block & Funder, 1986; Fein, Hilton, & Miller, 1990; Funder, 1987; Kahneman & Tversky, 1982; Miller, Schmidt, Meyer, & Colella, 1984; Miller & Lawson, 1989). While it is not proposed that the correspondence bias is simply an experimental artifact, support exists for the idea that at least one of the factors operating in the paradigm is the expectation that experimenters would not provide the participants with quiz information obtained under constrained conditions, unless the information was necessary for making the required inference (Funder, 1987; Higgins

& Bargh, 1987; Miller, Ashton, & Mishal, 1990).

In most studies the subjects are asked to carefully consider the information provided, and to estimate as accurately as possible the questioner and contestants' general knowledge ability in comparison to the average university student. To avoid the correspondence bias, subjects should follow the normative inferential rules of attribution theory, which require subjects to ignore the quiz data in favour of base-rate information (Miller, Ashton, & Mishal, 1990). Participants consequently find themselves in a paradoxical situation. If they use the information provided, they commit the correspondence bias. If they don't, they disobey the experimenters' instructions (Miller & Lawson, 1989). Since Milgram's (1963) seminal study, it is widely acknowledged that there is a high level of obedience manifested in experimental situations. Thus, it is unrealistic to expect many participants to ignore the information provided by the experimenter, in favour of obscure base-rate information.

Kahneman & Tversky (1982), have also explored the problems of interpreting the results of the questioner - contestant studies. They argue that subjects assume that the experimenter would not provide them with worthless information. The experimenter is expected to be "informative, truthful, relevant and clear" (Kahneman & Tversky, 1982, pg.132). This expectation is often violated in research on the correspondence bias, and they argue that because the "presentation of irrelevant information violates rules of conversation, subjects are likely to seek relevance in any experimental message" (Kahneman & Tversky, 1982, p.132). There is, therefore, a certain degree of ambiguity as to the participants' personal belief in the diagnostic value of the information, and the participants' opinion of the experimenters' personal belief in the diagnostic value of the information (Miller, Ashton, & Mishal, 1990). It may well be, that participants do recognize the situational constraints in such experiments, but that the traditional paradigms provide them with a demand to use the information provided by the experimenter (Miller et al. 1984).

The results of an attitude-attribution study, conducted by Miller et al. (1984), revealed that subjects in the no choice conditions, drew biased dispositional inferences about the actors. Yet 63% of the participants in these conditions, indicated that they thought the information provided by the experimenter was not useful for making a valid and accurate judgement about the essay writer's personal attitudes. In fact, 80% of these participants stated that they thought the information was worthless because the position had been assigned to the writer (Miller, et al. 1984). The results indicate that in studies such as these, there is little doubt about why the participants' responded as they did. Miller, et al. (1984), propose that the participants biased inferences "should not be misinterpreted, as signifying that the constraints on the essay writer have not been fully recognized" (Miller et al. 1984, p. 166). Thus, claims of an overriding tendency for individuals to attribute correspondent dispositions to actors, at the expense of relevant environmental factors should be viewed with a degree of caution. Attributional theorists may be falling into the same trap they claim their subjects do. By ignoring important environmental constraints, they too may be guilty of biased correspondent inferences (Sumpton & Gregson, 1981).

To summarize, rather than providing unequivocal support for Quattrone's (1982a) contention that the correspondence bias is robust and reliable phenomenon, the Ross et al. (1977) study appears to raise more questions than it answers.

Firstly, the results of the quiz game experiment do not appear to be generalizable. In Sumpton & Gregson's (1981) study the questioner superiority effect was not generalizable to other areas of knowledge.

Secondly, ability is defined consensually, therefore the subjects' ratings of the questioner and contestant are dependent on the ability to recognise that "a better performance ordinarily implies greater ability" (Block & Funder, 1986, p. 1201). Thus it is likely that the subjects' ratings of the contestant may depend on the number

of quiz questions correctly answered, while questioners' ratings may depend on factors such as difficulty of questions and short preparation time.

Finally, a substantial body of research into the cognitive processing of information exists, but very little work has explored what information is being processed. The subjects participating in quiz game experiments may well recognise that the behaviour sample is biased, but feel compelled to use the information provided in response to an experimental demand. If this is the case, what information are subjects responding to? In addition, what explanation would subjects give for using that information?

Origin of questions, differential ability and experimental demands have been identified as likely to contribute to the magnitude of the correspondence bias. By investigating these variables, and then allowing subjects the opportunity to identify aspects of the paradigm which influence their ratings, additional factors which contribute to the bias may be identified.

CHAPTER THREE

THE PRESENT STUDY

The majority of studies examining the correspondence bias have focused on the internal characteristics of the participants. The present study adopts a more external approach, and explores the possibility that the bias demonstrated by Ross et al. (1977), occurred because the paradigm itself encouraged biased dispositional inferences on the part of the subjects. The present study was designed in the belief that the correspondence bias is less robust than the literature would suggest, and that numerous factors operate to attenuate the magnitude of the effect.

It was expected that a research design which included both a quantitative and a qualitative component, would result in the two separate but complementary lines of investigation leading to a greater understanding of factors which possibly contribute to the bias. That is, while quantitative data is usually the underlying basis for theory, qualitative data is likely to lead to new theoretical integrations by helping researchers go beyond initial preconceptions (Kirk & Miller, 1986). Secondly, the validity of data is strengthened when it is subjected to more than one level of analysis.

HYPOTHESES AND DESIGN OF THE PRESENT STUDY

SECTION ONE: QUANTITATIVE ANALYSES

The purpose of the study was to examine the questioner superiority effect defined as: the superior ability attributed to the randomly designated questioner, compared to the randomly designated contestant by the subjects. A two by two factorial design similar to that developed by Ross et al. (1977), was implemented to examine the effect of origin of questions, and the number of items correctly answered, on the questioner's and contestant's general knowledge ability ratings. In line with the review in the

preceding chapter it was expected that the manipulation of the origin of questions and the number of questions correctly answered would have an effect on the magnitude of the correspondence bias.

The first experimental manipulation focused on the origin of the quiz questions. Half the subjects were informed that the questioner had prepared the quiz questions (Questions generated conditions), and the other half were informed that the quiz questions had been prepared by the experimenter beforehand (Questions supplied conditions). The second experimental manipulation was the number of quiz questions correctly answered by the contestant. Half the subjects viewed the contestants correctly answer four questions (four questions correct conditions), while the remaining subjects saw the contestant correctly answer six questions (six questions correct conditions).

The dependent variable in this design was the general knowledge ability ratings of the questioner and contestant by the subjects.

The four experimental conditions were:

Condition 1. Questions generated, four questions correct.
Condition 2. Questions generated, six questions correct.
Condition 3. Questions supplied, four questions correct.
Condition 4. Questions supplied, six questions correct.

Regardless of the source of the questions, the biased nature of the questioner and contestant roles was expected to result in subjects discounting the quiz data in favour of base-rate information. It was also expected that subjects in the generated questions conditions (conditions 1 & 2), would underestimate the situational determinants of the behaviour sample and make correspondent inferences, resulting in a questioner superiority effect.

Hypothesis 1.1.

The questioner's general knowledge ability will be rated as significantly higher than the contestants' by subjects in conditions 1, 2 and 3.

As was discussed in the preceding chapter, ability unlike other traits is defined consensually. Therefore it was expected that the ratings of the contestants' general knowledge ability would be dependent on the number of questions answered correctly, while the ratings of the questioners' general knowledge ability would be dependent on the difficulty of the questions they posed.

In the questions supplied conditions (3 and 4), it was expected that the biased nature of the behaviour sample would become more evident. The ratings of the contestants' general knowledge ability, however, were not expected to be affected by the origin of the quiz questions. It was expected that the ratings of the contestants' general knowledge ability would be similar in the questions generated and the questions supplied conditions and would be dependent on the number of questions correctly answered. It was expected that the subjects would either fail to make any rating of the questioners' general knowledge ability, or make use of base-rate information, and rate the questioners' general knowledge ability at 50%.

Consequently, it was expected that the questioner superiority effect would be evident in condition 3 (questions supplied, four questions correct), not because the questioner was rated as having superior general knowledge ability, but rather because the contestant was rated as having inferior general knowledge ability. In condition 4 (questions supplied, six questions correct), it was expected that the ratings of the questioners' general knowledge ability would be a neutral 50%, while the ratings of the contestants' general knowledge ability would be above average, resulting in a reversal of the questioner superiority effect.

Hypothesis 1.2.

The questioner superiority effect will be reversed in condition 4, and the contestant's general knowledge ability will be rated as higher than that of the questioner.

Based on these assumptions it was also expected that certain outcomes were likely when the variables origin of questions and number of questions correct were examined separately. If the ratings of the contestants' general knowledge ability were dependent on the number of questions answered correctly, then it was expected that the magnitude of the questioner superiority effect would be greater when the contestant answered four questions correctly. Similarly, if the ratings of the questioner were influenced by the origin of questions, (dependent on the difficulty of questions when generated and resulting in a neutral rating when supplied), then the magnitude of the questioner superiority effect should be greater when the questioner generates the questions.

Hypothesis 1.3.

The magnitude of the questioner superiority effect will be greater when the questions are generated by the questioner than when they are supplied by the experimenter.

Hypothesis 1.4.

The magnitude of the questioner superiority effect will be greater when the contestant answers four questions correctly, than when the contestant answers six questions correctly.

SECTION TWO: QUALITATIVE ANALYSES

This section of the study which comprises a set of open-ended questions, is essentially

qualitative and exploratory in nature. The primary aim is to identify those aspects of the research paradigm which the subjects identify as being important for rating the questioners' and contestants' general knowledge ability; and to explore how the data fits with current research and the theoretical implications that this may have.

Previous researchers have not systematically included a qualitative component in their studies. Hence, claims that subjects are unaware of the biased nature of constrained information, and which aspects of the quiz information influence subjects' ratings has been largely speculative, relying heavily on individual interpretations of empirical data and/or information gleaned from debriefing sessions.

While there is no research that relates directly to this section of the study, an attitude attribution study conducted by Miller et al. (1984) provides the basis for developing the research questions. When asked if an essay written under constrained conditions was useful, subjects in the study stated that it was not, resulting in the researchers concluding that the majority of subjects recognised the biased nature of the sample.

Research Questions

Due to the exploratory nature of the study, there are no definite hypotheses. The following research questions are of interest.

Research Question 2.1.

The frequency with which observers categorize the quiz information, as useful/not useful for making an inference about the questioners' and contestants' general knowledge ability.

Research Question 2.2.

The explanations for the usefulness of the quiz information. In particular were the subjects influenced by the biased nature of the behaviour sample, the difficulty of the questions posed by the questioner and the number of items correctly answered by the contestant.

Research Question 2.3.

The ratings of the questioner's and contestant's general knowledge ability subsequent to the categorization of the quiz information as being useful/not useful.

Research Question 2.4.

The explanations for the ratings of the questioners' and contestants' general knowledge ability.

CHAPTER FOUR

METHOD

Subjects

The 100 subjects who volunteered to take part in the study were university students recruited from an introductory psychology class (72 females and 28 males). The subjects varied in age from 18 - 51, with the majority (89%) being under 25 years of age.

Materials

The Videotaped Manipulation.

Four similar videos were used. In each,the experimenter was seen to greet the viewer (subjects) and provide the following introduction about the experiment:

"An area of interest to psychologists is impression formation, that is the judgements we make about other people and their behaviour. In this experiment we are interested in looking at the way people form impressions about other people's general knowledge ability.

What you are about to see is the re-enactment of a quiz game experiment. There are two female subjects, one who takes the role of the questioner and the other who takes the role of the contestant. Normally in experiments of this type the questioner prepares and poses 10 general knowledge questions to the contestant. Shortly you will see the two subjects arrive and they will be allocated to one of the two roles on a random basis."

The subjects were greeted by the experimenter and informed that they would be taking part in a quiz game experiment. They were randomly assigned to the role of questioner or contestant by selecting one of two cards held by the experimenter.

In videos one and two the questioner was asked to prepare 10 challenging questions to ask the contestant. She was told to avoid simple questions (like the number of days in the month of April), or impossible questions (such as the name of the questioner's sister). The questioner was given pen and paper and 10 minutes to prepare the questions.

In videos three and four the questioner was supplied with 10 questions. The questioner and contestant were told that because so many students were taking part in the experiment, the questions had been prepared beforehand to avoid any unfairness. The questioner was given 10 minutes to read through the questions.

During the quiz the questioner faced the contestant and waited 30 seconds for the contestant's response to each question, acknowledging correct responses, and supplying them when the contestant failed to answer or answered incorrectly. At the conclusion of the session, the questioner informed the contestant of the number of correct responses.

In videos one and three the contestants' correctly answered four questions, and in videos two and four the contestant correctly answered six questions.

*It should be noted that in each of the experimental conditions the questions posed to the contestants were the same, and had been prepared by the experimenter beforehand. A copy of the quiz questions is presented in Appendix A.

The Research Instruments

Section One: Quantitative Analyses

The data-gathering instrument used in this study was a questionnaire (a copy of which is presented in Appendix B). It consisted of 100 point Likert rating scales anchored at 0% and 100%. The key questions were the ratings of the questioners' and contestants' general knowledge ability as compared to the average first year Massey University student. Other items similar to those used by Ross et al. (1977), and Block and Funder (1986) were included as filler items, and were not included in the data analysis.

Section Two: Qualitative Analyses

Subjects were asked eight open-ended questions that were designed to clarify the answers they provided in the written questionnaire.

A copy of the oral questions is presented in Appendix C.

Questions one and eight were included as manipulation checks.

A tape-recorder was used to record the subjects, answers.

Procedure

Recruitment of subjects

Names of potential subjects were gained via first-year psychology tutorial class lists. Prospective subjects were then contacted by telephone and the nature of the research was explained to them. The subjects were informed at the time of recruitment that

they would be required to watch a video re-enactment of an experiment about forming impressions; complete a questionnaire; and answer oral questions pertaining to what they would see on the video.

Prior to the commencement of the experiment, subjects were given a more specific indication of the nature of the study, what was required of them, and the time it would take to complete.

Subjects read and signed a consent form attached to the questionnaire, and were assured that it would be removed before the data analysis to maintain confidentiality. The consent form included an item stating that the participants had the right to refuse to answer any particular question, and withdraw from the study at any time. It was expected that such a statement would release the subjects from any implied experimental demands.

Subjects were seen singly, and were randomly assigned to one of the four experimental conditions in the 2 (questions generated vs. questions supplied) X 2 (four vs. six questions correct) design.

On completion of the experiment the subjects were debriefed; thanked for their assistance; and asked not to discuss the purpose or the procedure of the study with others. Arrangements were made to send a brief summary of the results to the subjects' home addresses upon the completion of the study.

CHAPTER FIVE

RESULTS

This chapter is divided into two sections. Section One reviews the results of the quantitative analyses of the present study. Section Two outlines the findings of the qualitative aspects of this study.

SECTION ONE: QUANTITATIVE ANALYSES

Processing the data involved computer analysis using SPSS.PC, (Norusis, 1990) the statistical package for the Social Sciences.

1. Descriptive statistics, including means and standard deviations were computed.

2. Analysis of variance (ANOVA's) were performed. ANOVA enables a comparison of how much variance exists between the different means.

3. T-tests were computed to establish whether differences between groups were significant.

For all analyses the minimum significance or alpha level was set at $p = .05$. All significant values represent one-tailed tests. The assumptions for all analyses were met.

Analysis by ANOVA showed no significant gender differences between subjects on the dependent measure of general knowledge ability of the questioner and contestant. The data were therefore collapsed across subject gender.

Nineteen (19%) of the subjects chose not to rate the questioner and/or the contestant's

general knowledge ability. The subjects' responses to the other sections of the study are included in the qualitative data analysis.

Subsequently, 81 cases were included in the statistical data analysis, $N = 24$ in condition 1; $N = 24$ in condition 2; $N = 14$ in condition 3; and $N = 19$ in condition 4.

*Note. The questioner superiority effect is determined by the ratings of the questioner's general knowledge ability minus the ratings of the contestant's general knowledge ability.

General Knowledge Ability Ratings.

The first prediction of the present study, was that subjects' ratings of the questioner's general knowledge ability would be significantly higher than the contestants' general knowledge ability in conditions 1 and 2 and 3.

Table 5.1 shows that the subjects rated the questioner's general knowledge ability as being significantly higher than that of the contestants' in condition 1 ($M = 21.46$),$t(23) = 6.98$,$p < .01$; condition 2 ($M = 14.16$),$t(23) = 5.15$,$p < .01$; and condition 3 ($M = 12.50$),$t(13) = 5.11$,$p < = .01$. The results indicates that the questioner superiority effect was replicated in each of the three conditions.

Table 5.1: Means and Standard Deviations of Questioner and Contestants General Knowledge Ability Ratings and Questioner Superiority Effect.

	General Knowledge Ability		
Condition	Questioner	Contestant	Questioner Superiority Effect
1. Generated (4 correct)	66.66 (15.7)	45.20 (10.9)	21.46 (15.0)
2. Generated (6 correct)	75.20 (11.2)	61.04 (13.1)	14.16 (13.4)
3. Supplied (4 correct)	49.64 (9.7)	37.14 (8.7)	12.50 (9.1)
4. Supplied (6 correct)	54.73 (11.1)	55.51 (9.7)	-0.78 (14.2)

Note. Cell numbers in conditions 1, 2, 3 and 4 are 24, 24, 14 and 19 respectively. *SD* are in parentheses.

The second prediction of the present study was that the questioner superiority effect would be reversed in condition 4, and that the contestant's general knowledge ability would be rated as higher than that of the questioner.

Table 5.1 shows that while the contestant was rated as having superior general knowledge ability to that of the questioner, the difference was not significant, (M = -0.78),$t(18) = -.24, p < .812$, thereby, failing to support the idea that the questions supplied and six questions correct variables would reverse the questioner superiority effect.

The third prediction of the present study was that the questioner superiority effect would be greater when the questions were generated than when they were supplied.

Table 5.2 shows that when the questions were generated by the questioner, the questioner superiority effect (M = 17.18), was greater than when the questions were

supplied by the experimenter (M = 4.84),t(79), = 4.00,p < .01. The ratings of the questioner's general knowledge ability varied according to the origin of questions. The subjects' rated the questioner as having superior general knowledge ability in the generated conditions, as opposed to the supplied conditions when the questioner was attributed with average ability.

Table 5.2. Means and Standard Deviations of General Knowledge Ability Ratings and the Questioner Superiority Effect According to Origin of Questions

	General Knowledge Ability		
Origin of Questions	Questioner	Contestant	Questioner Superiority Effect
Generated	70.93 (14.2)	53.12 (14.3)	17.81 (14.6)
Supplied	52.56 (10.6)	47.72 (12.9)	4.84 (13.8)

Note. *SD* are in parentheses. Generated condition N = 48 and supplied condition N = 33.

The fourth prediction of the present study was that the magnitude of the questioner superiority effect would be greater when the contestant correctly answered four questions than when she answered six questions.

Table 5.3 shows that the questioner superiority effect was significantly higher when the contestant correctly answered four questions (M = 18.16), than when the contestant correctly answered six questions (M = 7.56), t(79) = 3.22, < = .01. The ratings of the contestant's general knowledge ability was dependent on the number of questions answered correctly, indicating that the number of questions correct influences the magnitude of the questioner superiority effect.

Table 5.3 Means and Standard Deviations of General Knowledge Ability Ratings and the Questioner Superiority Effect According to Number of Questions Correct

	General Knowledge Ratings		
Questions Correct	Questioner	Contestant	Questioner Superiority Effect
Four	60.39 (15.9)	42.23 (10.8)	18.16 (13.7)
Six	66.16 (15.1)	58.60 (11.9)	7.56 (15.5)

Note. *SD* are in parentheses. Four correct conditions $N = 38$. Six correct conditions $N = 43$.

SECTION TWO: QUALITATIVE ANALYSES

The general aim of the second section of the present research was to examine the factors that subjects identify as important for rating the questioner and contestants' general knowledge ability; how the data fits with current research and implications that this may have.

In terms of the research aim, analysis of the open-ended questions is mainly concerned with qualitative information, although simple statistical data such as frequencies and means are presented to support certain outcomes.

It should also be noted, that the data analysis in this section includes the total number of subjects (100).

The first objective of this section of the study was to determine the frequency with which the subjects categorize the quiz information as useful/not useful for making an inference about the questioner's and contestant's general knowledge ability.

The Questioner

Table 5.4 shows the subjects' responses to the usefulness of the quiz information. Overall, 27 subjects in the generated and one in the supplied conditions found the information useful, while 23 in the generated and 49 in the supplied conditions, found the information not useful for making an inference about the questioner's general knowledge ability.

The Contestant

Overall, 18 subjects in the generated and 42 in the supplied conditions found the information useful, while 32 in the generated and eight in the supplied conditions found the information not useful for making a judgement about the contestant's general knowledge ability.

Table 5.4 Responses of Subjects' Categorization of the Usefulness of the Quiz Information

	Questioner		Contestant	
Condition	Useful	Not Useful	Useful	Not Useful
No 1.	13	12	10	15
No 2.	14	11	8	17
N0 3.	1	24	19	6
No 4.	0	25	23	2

The second objective of the study was to ascertain why subjects found the quiz information useful or not useful in making inferences about the questioner's and contestants' general knowledge abilities. Of special interest was whether the subjects were influenced by the biased nature of the behaviour sample, the difficulty of the questions posed by the questioner, and the number of items correctly answered by the

contestant.

The Quiz Information Was Useful

The Questioner

Of the 27 participants in the generated conditions (conditions 1 and 2) who found the information useful for rating the questioner's general knowledge ability, 16 stated that they thought the questions were difficult, and 15 said that the questions covered a wide range of topics. A further nine claimed that preparing 10 intelligent questions in 10 minutes was a good indication of the questioner's intelligence, and two participants suggested that the questioner appeared poised and confident in her ability.

In the questions supplied conditions (conditions 3 and 4), one participant found the information useful, claiming that because the questioner was a student, who spoke well and appeared confident she seemed intelligent.

The Quiz Information Was Not Useful

The Questioner

In the generated conditions (conditions 1 and 2), 12 of the 23 participants who thought that the quiz information was not useful for rating the questioner's general knowledge ability said that the sample of behaviour was too small to be able to make an accurate judgement. Ten participants claimed that the questions were from the questioner's storehouse of general knowledge ability, and that most people would be able to generate 10 difficult questions. Two participants said that it was difficult to make an accurate judgement because the questioner was not seen answering any questions, and two specifically stated that the information was biased in favour of the questioner.

Of the 49 subjects in the supplied conditons (conditions 3 and 4), who thought that the quiz information was not useful for making an accurate judgement of the questioner's general knowledge ability, 18 said that the questioner did not answer any quiz questions so it was impossible to tell how intelligent she was. 14 participants said that the information was not useful because the questions had been supplied by the experimenter. A further 18 claimed that they either had too little information or no information on which to make a judgement of the questioner's general knowledge ability.

The Quiz Information Was Useful

The Contestant

The origin of questions or number of questions correctly answered did not influence subjects' responses regarding the usefulness of the quiz information for rating the contestant's general knowledge ability. Thus the data are presented according to whether subjects found the information useful or not useful.

Thirty-one of the 60 participants who found the quiz information useful, claimed that the wide range of questions asked by the questioner provided a good indication of the contestant's general knowledge ability. Twenty-seven participants said that it was possible to judge the contestant's general knowledge ability by the number and or the difficulty of the questions correctly answered. Thirteen subjects qualified their statements by suggesting that it was a limited indication due to the small number of questions asked. Another participant thought the information was useful but was not sure why. The remaining participant stated that because the roles of questioner and contestant were randomly assigned, the contestant's performance was likely to be representative of other students.

The Quiz Information Was Not Useful

The Contestant

Twenty-four of the 40 participants said that the quiz information was not useful for rating the contestant's general knowledge ability because the questions were prepared by the questioner from her storehouse of general knowledge. These participants suggested that the contestant would be likely to have knowledge in different areas. Eleven participants claimed that the sample was too small to be able to make an accurate judgement. Three participants claimed that the quiz was biased and unfair, while another who also said that the quiz was unfair suggested that both subjects should have had the opportunity to prepare and answer the quiz questions. Finally, one participant asked 'what's general knowledge?'.

The third objective of the study was to determine the subjects ratings of the questioner's and contestant's general knowledge ability following the categorization of the quiz information as useful or not useful.

Table 5.5 shows that the overall outcome remains unaltered by the subjects' categorization of the quiz information as useful or not useful. The ratings of the questioner in conditions one and two were considerably lower when the subjects found the information not useful. However, there was no difference in the ratings of the questioner and contestant's general knowledge ability in the other conditions.

Table 5.5 Mean Ratings of General Knowledge Ability Following Categorization of The Usefulness of Quiz Information

	General Knowledge Ability			
	Useful		Not Useful	
Condition	Questioner	Contestant	Questioner	Contestant
No 1	76.15 (13)	45.50 (10)	59.16 (12)	45.00 (14)
No 2	77.85 (14)	60.62 (8)	70.50 (10)	61.85 (16)
No 3	50.00 (1)	37.89 (19)	49.61 (13)	41.66 (6)
No 4	- (0)	53.26 (23)	54.73 (19)	55.00 (2)

Note. The figures in parentheses are the numbers of subjects in each condition who rated either the questioner or contestant.

The fourth objective of the study was to identify the explanations given by subjects for their general knowledge ability ratings of the questioner and contestant.

The Questioner

Information Useful Conditions

The ratings of the questioner's general knowledge ability by the 27 participants in the questions generated conditions (conditions 1 and 2) who found the quiz information useful, ranged from 50% - 100%. Thirteen said they based their ratings on the fact that the questioner had prepared questions from a wide area of topics. Thirteen stated that the questions were difficult, while four qualified their explanation stating the short preparation time was a factor adding to difficulty. Five participants claimed that they compared the questioner's performance to their own, and one thought that the questioner's performance was above average.

In the questions supplied conditions (condition 3 and 4) the only participant who

thought the quiz information was useful rated the questioner's general knowledge ability at 50%.

By way of explanation it was stated "I tried to judge from her personality, her confidence and the way she spoke."

The Information Was Not Useful

In the questions generated conditions (conditions 1 and 2), five of the 23 participants who thought the information was not useful, rated the questioner's general knowledge ability at 50%, claiming it was not possible to tell how intelligent she was. A further 14 who claimed that the information was not useful nevertheless returned ratings ranging from 50% to 80%, and stated that they rated the questioner on the difficulty of questions and/or the fact that the questions were drawn from a wide range of topics. Three participants said they could not really tell but still rated the questioner on what they observed, while the final participant claimed he had no idea what general knowledge was, and wasn't therefore qualified to make any judgement.

In the questions supplied conditions (conditions 3 and 4), 41 of the 49 participants who found the information not useful, claimed that they had no information with which to judge the questioner's general knowledge ability. Seventeen of these participants did not rate the questioner, a further 20 rated the questioner at a neutral 50%. and four participants rated the questioner at 25%, 35%, 40% and 60%. The remaining eight participants whose ratings of the questioner's general knowledge ability ranged from 55% to 80%, said that the questioner appeared to know the answers to the questions, and/or that she appeared calm and confident.

The Contestant

Because the subjects general knowledge ability ratings of the contestant's general

knowledge ability were influenced by the number of questions correctly answered, the data are presented according to the number of questions correct.

Condition one and three (four questions correct)

Of the 29 participants who found the information useful, twenty rated the contestant's general knowledge ability at less than 50%, claiming that four correct was slightly below average. A further eight who rated the contestant at 50% said that due to the difficulty of the questions four correct was an average performance. The remaining participant who claimed to be very intelligent, compared his performance to that of the contestant whom he rated at 80%.

Not Useful

Ten of the 15 participants who thought that the information was not useful, rated the contestant's general knowledge ability at 30% to 40% claiming that her performance was either below average or had compared unfavourably to their own. Six participants said that it was an average performance, and rated the contestant at 50% while another who rated the contestant's general knowledge ability at 60% said that the contestant did well to answer four questions correctly in a pressure situation. The three remaining participants claimed that the test disadvantaged the contestant, with one refusing to make a rating and the other two rating the contestant at a neutral 50%.

Conditions two and four (six questions correct)

Of the 31 participants who found the information useful, fourteen rated the contestant's general knowledge ability at between 60% and 80% claiming that her general knowledge ability was obviously above average if she was able to answer six difficult questions correctly. Nine participants said that it was an average performance

and rated the contestant at 50%, while six others whose ratings ranged from 40% to 55%, thought the contestant answered fewer questions than would be expected. The remaining participants both rated the contestant at 40% claiming that her performance compared unfavourably to their own.

Ten of the 17 participants who thought the information was not useful rated the contestant's general knowledge ability at between 60% and 80%. Eight of these claimed that correctly answering six difficult questions was an indication of an above average general knowledge ability, while the other two rated the contestant favourably by comparison to their own average performance. Six participants rated the contestant at 50% and said that her general knowledge ability was about average. A further two participants whose ratings were 40% and 70%, said their ratings reflected the contestant's inability to answer some very basic questions, while the remaining participant refused to make any rating, claiming he had no idea what general ability meant and was therefore unqualified to comment.

CHAPTER SIX

DISCUSSION

The primary aim of the present study was to examine variables that might attenuate or eliminate the effect of the correspondence bias. Secondary aims were to identify those aspects of the research paradigm that encouraged subjects to commit the bias, and to examine the findings of the research in view of how they fit with the current literature.

The first section of the study examined the effects of origin of questions and number of questions correctly answered on subjects' ratings of the general knowledge abilities of questioners and contestants. The second section examined those aspects of the research paradigm that influenced these ratings.

SECTION ONE: QUANTITATIVE ANALYSES

HYPOTHESES

Hypothesis 1.1.

The results of the present study support the hypothesis. The general knowledge ability of the questioner was judged to be superior to that of the contestant in conditions one, two and three.

In conditions one and two the magnitude of the questioner superiority effect was consistent with the findings of Davies (1985) and Sumpton and Gregson (1981).

When the questions were generated by the questioner (conditions one and two), subjects overlooked the presentational advantages enjoyed by the questioner and

committed the correspondence bias. As expected, the magnitude of the bias varied according to the number of questions correctly answered by the contestant. It would appear that there is a generally accepted criterion that provides a base for assessment, supporting the notion that abilities are consensually defined.

The results also show that when ratings of the the contestants' general knowledge abilities rose in response to the number of questions correctly answered, the ratings of the questioner's ability increased as well. While the increase was not of the same magnitude as that of the contestant's ability ratings, it appears that the strength of the questioner superiority effect was such that, when the contestant was judged as being above average in general knowledge ability, ratings of the questioner's ability also rose to reflect their perceived superiority.

While the evidence clearly shows the presence of the questioner superiority effect in condition three, it may be indefensible to describe the result as an example of the correspondence bias. To avoid committing the correspondence bias, subjects should have discounted the role-constrained information in favour of base-rate data. The ratings of the questioner's general knowledge ability revealed that the subjects were under no illusion about the usefulness of the quiz information as subjects tended to discount the information, and either refused to rate the questioner, or relied on base rate information. The ratings of the contestant however, reflected a reasonably accurate judgement based on a small but fair display of her ability to answer questions. By definition, in order to commit the correspondence bias, subjects should have ignored the situational constraints of the role information and ascribed the questioner with superior ability. They did not. Nor were the ratings of the contestant without justification. Therefore, while it is clear that there is a questioner superiority effect present in condition three, an automatic attribution of this to the correspondence bias is not justified.

Hypothesis 1.2.

Although the subjects' ratings of the contestant's general knowledge ability were higher than those of the questioner in condition four, the difference was not significant. The hypothesis was not therefore supported.

However, the results did indicate that the combination of questions supplied and six questions correct eliminated the questioner superiority effect.

Hypothesis 1.3.

The findings of the research support the hypothesis that the magnitude of the questioner superiority effect would be greater when the questions were generated by the questioner than when they were supplied by the experimenter.

The results also indicate that when the questions were generated, the questioner was rated as having superior general knowledge ability. When the questions were supplied, subjects generally discounted the information in favour of base-rate data or refused to rate the questioner's general knowledge ability. This result is consistent with the findings of Davies (1985), but not with those of Hui and Ip (1989).

Hypothesis 1.4.

Support was also found for the hypothesis that the magnitude of the questioner superiority effect would be greater when the contestant answered four questions correctly than when the contestant answered six correctly.

The ratings of the contestant's general knowledge ability varied according to the number of questions that were answered correctly. The findings do not relate to any previous research, although the results of the Ross et al. (1977) study indirectly

provided a basis for the development of a research design to examine the effect of the number of questions answered correctly on ratings of the contestant's general knowledge ability. In their study, female subjects asked more difficult questions and received fewer correct responses than the male subjects. This resulted in a greater magnitude of the correspondence bias, suggesting that the number of questions correct would influence subjects' ratings. The present results are consistent with this finding. The number of questions answered correctly exerted a strong influence on the subjects in the present study: in fact it appeared to be the single factor on which they based their ratings of the contestant's general knowledge ability..

SUMMARY

The findings in this section satisfied the primary research aim by identifying variables that reduced the magnitude of the correspondence bias. As expected, the combination of questions supplied and six questions corrrect eliminated the bias.

A large number of subjects in this study recognised the irrelevance of the quiz information when the questions were supplied. This appears to indicate that the correspondence bias may not be as robust as previously thought.

SECTION TWO: QUALITATIVE ANALYSES

There were no specific hypotheses in this section of the study. The research was exploratory and was conducted in an attempt to identify those aspects of the paradigm that influenced subjects' ratings of the questioner and contestant, to examine the findings in view of the current literature, and discuss any theoretical implications.

RESEARCH QUESTIONS

Research Questions 2.1. and 2.2.

The first research question was designed to ascertain whether or not students found the biased quiz information useful when rating the questioner's and contestant's general knowledge ability. The second question sought to investigate subjects' explanations regarding the usefulness of the information.

The results demonstrate that 27 of the 28 subjects who found the quiz information useful for judging the questioner's general knowledge ability were in the questions generated conditions. They were largely influenced by the difficulty of questions and the short preparation time. The 60 subjects who found the information useful for rating the contestant's general knowledge ability, were also influenced by normally appropriate judgement heuristics. They claimed that the number of correct responses and the difficulty of questions constituted a reasonably accurate test of general knowledge ability.

The majority of subjects who thought the information was of no use for rating the questioner's or contestant's general knowledge ability, recognised that given the opportunity, the contestant may also have been able to come up with difficult questions.

The present results support the interpretation of Miller et al. (1984), and indicates that people recognise the bias more often than is generally acknowledged in social psychology experiments.

Research Question 2.3.

The third research question examined subjects' general knowledge ability ratings of

the questioner and contestant. Ratings were made following subjects' categorization of the usefulness of quiz information.

The results indicated that ratings of the contestants' were not influenced by either the subjects' views as to the usefulness of the quiz information or the origin of the questions, but varied according to the number of questions correctly answered. This result provides support for Block and Funder (1986) and Nisbett and Ross (1980) who claim that ability is consensually defined. That is, regardless of the origin of the quiz questions, subjects tend to rate the contestant's general knowledge according to their correct response rate.

The subjects' ratings of questioner's general knowledge ability however, was influenced by both the origin of questions and the perceived usefulness of the quiz information. While there was little difference between the ratings in the supplied conditions, the ratings of the questioner's general knowledge ability were lower when subjects thought the quiz information was not useful. This result is in contrast to that of the Miller et al. (1984) attitude attribution study.

Thus, subjects who recognised the biased or irrelevant nature of the supplied information, tended to discount the information and make neutral ratings or no ratings of the questioner. This reinforces the earlier findings which implied that when given a choice, people may not be as likely to commit the correspondence bias as generally assumed.

Research Question 2.4.

The fourth objective of the present study was to examine the explanations provided by the subjects for their ratings of the questioner and contestant.

The results showed that subjects' judged the contestant's general knowledge ability

on the number of questions correctly answered, their perception of what constituted above average, average or below average scores, and in comparison to themselves. Subjects who specifically stated that the quiz was biased, either refused to make a rating or chose a neutral position.

The results indicated that the subjects' ratings of the questioner's general knowledge ability varied according to whether the subjects were in the generated or supplied conditions and whether they thought the quiz information was useful or not useful. In the generated conditions subjects who had previously found the information useful, tended to judge the questioner on the difficulty of the questions; the wide range of topics covered by the questions; the short preparation time, and in comparison to their own perceived ability to generate questions under similar conditions. This supports previous research findings that subjects used strategies which would normally be appropriate for judging ability, but failed to adequately account for situational constraints. Subjects who had indicated that the information was not useful were more likely to rate the questioner's general knowledge ability as average or to make no rating. The magnitude of the bias was greatly reduced for this group.

In the supplied conditions, the majority of subjects either refused to rate the questioner or chose a base-rate of fifty per cent. Several of the subjects did however make judgements based on the confidence and poise of the questioner.

An unusual finding was that when the questions were generated 30 of the 50 subjects thought that the quiz information was not useful for rating the contestant's general knowledge ability. However, when the questions were supplied this number dropped to six, in spite of the lack of differences in the usefulness of the information pertaining to the contestant in these conditions. It may be that the subjects were responding to an implicit experimental demand. As there was no useful information in the supplied conditions which subjects could use to judge the questioner's general knowledge ability they placed more emphasis on information about the contestant.

This interpretation supports the claim that there are pressures on subjects in the correspondence bias paradigms to use the information provided diagnostically (Block and Funder, 1986; Fein, Hilton & Miller, 1990; Funder, 1987; Kahneman & Tversky, 1982; Miller, Schmidt, Meyer, & Colella, 1984; Miller & Lawson, 1989). In particular, Kahneman and Tversky (1982) have stated that subjects in experimental conditions assume that the information provided by the experimenter is useful for making an attribution. When that expectation is violated the subject attempts to seek relevance in any information. The findings of this study support such an explanation.

RESULTS OF THE STUDY IN RELATION TO CORRESPONDENCE BIAS MODELS

In the present study there was no reason to expect that there were any differences in the general knowledge ability of the questioner or the contestant. Subjects were asked to rate the questioners' and contestants' general knowledge ability and were given no information on which to base their evaluation except the biased behaviour sample. The results of this study indicate that many of the subjects were aware of the biased nature of the quiz game information, if not in the generated conditions definitely in the blatantly biased supplied questions conditions. In real life situations, performances may reflect differences in ability, and may not be so constrained by situational variables. On the other hand, real life situations may contain just as many situational constraints although people may not feel obliged to make attributions so readily. That is, people may choose to suspend judgement or seek additional information prior to making a judgement. Consequently, there is no information that suggests that the correspondence bias witnessed within the confines of the present experimental paradigm will generalise to an everyday context.

Traditionally the anchor adjustment model (and the salience of behaviour) has been advanced as the most likely explanation for the correspondence bias. According to this model subjects see an actor producing his/her behaviour and infer a

correspondent disposition, but do not adequately account for the situational factors that may contribute to that behaviour.

In general these results provide support for the contention that the correspondence bias persists in spite of an awareness of situational constraints. Many of the subjects in the questions generated conditions recognised that the quiz information was biased. The results indicate that in these conditions the magnitude of the bias was reduced, however the subjects did not adequately adjust for the presentational advantages enjoyed by the questioner.

The bounded rationality model, the pragmatic approach and the ecological approach to person perception also provide plausible explanations for the questioner superiority effect observed in the present study. These models suggest that people are likely to be more concerned with whether their judgements are true for them (circumscribed accuracy), rather than true in general (global accuracy). People do hold intuitive causal theories that guide the use of information in explaining and predicting the behaviour of others. It would seem from the results that the majority of subjects in this study, while recognising that the sample was biased, nevertheless complied with an experimental request to judge the general knowledge ability of the questioner and contestant. Consequently, subjects utilised a variety of normally appropriate strategies such as the origin of the questions, knowledge of differential task performance, prior expectations, and assignment of the difficulty of questions in order to make their judgements.

IMPLICATIONS

The results of the present study represent a step toward identifying certain conditions under which the correspondence bias will occur and the conditions in which it will not. What is apparent is that the bias is a complex process which is vulnerable to a variety of environmental and behavioural cues. It is also probable that current models

of explanation are inadequate in accounting for what is a multidetermined phenomenon.

This study also raises questions as to what some research paradigms, designed to measure the correspondence bias, are in fact measuring. The large number of subjects who either declined to make a rating, or explicitly stated that they did not have the information to make an adequate judgement (although many still attempted to do so), may imply that that the experimental demand factor is a confounding force in some studies claiming to measure correspondence bias.

METHODOLOGICAL LIMITATIONS OF THIS RESEARCH

Sample

The subjects in the present study were first year university students, the majority of whom were under 25 years of age. Hence, the generalizability of the results may be limited to student populations.

The ethical statement on the consent form which was designed to release the subjects from any implicit experimental demand resulted in unequal cell numbers ranging from 14 - 24. This may have reduced the predictive power of the statistical data, although the strength of the data and the similarity of the findings to those of other researchers suggests that this is not the case.

The results of the study show that despite the inclusion of a statement designed to reduce an implicit experimental demand, some subjects seem to have felt obliged to use the quiz information diagnostically despite recognising the fundamental limitations of the information. It may be that the statement used was ambiguous, or lacked the emphasis which might encourage subjects to avoid making judgements they recognised they had insufficient information to make accurately.

FUTURE RESEARCH RECOMMENDATIONS

Future researchers may be well advised to devote more time to an examination of the manner in which the person perception process is woven into the fabric of every day life and into ongoing social relationships. Rather than examine judgement processes in experimental settings where the results are likely to be exaggerated, an effort should be made to conduct studies in more naturalistic surroundings.

This study incorporated a qualitative component to identify those aspects of the quiz game paradigm which encourage subjects to make dispositional attributions at the expense of situational attributions. Future research should continue in this direction in order to gain a greater understanding of the many facets involved in the attribution process.

CONCLUSION

The first section of the present study examined the origin of questions and number of questions answered correctly on the general knowledge ability ratings of the questioner and contestant. The results show that in the questions supplied, and six questions correct condition, the bias was eliminated. This supports the research aim that there are many factors which may reduce the magnitude of the questioner superiority effect.

The second section of the present study sought to identify factors operating within the research paradigm which encourage subjects to commit the correspondence bias.

The results of this study tend to support the findings of previous research; that subjects fail to adjust sufficiently for the role biased situational constraints operating within the paradigm. Although a number of subjects in this study recognised the bias inherent in the conditions within the paradigm, the fact that many chose to rate

both questioner and contestant (despite the inclusion of a statement specifically designed to release subjects from pressure to do so), suggests that providing a rating, any rating, is a demand characteristic operating within the paradigm.

If subjects feel that they should or must make some rating in situations where insufficient relevant information is available, they may adopt one of two strategies.

They may use a normative model of information processing, in which case they would be likely to discount the biased information in favour of base-rate data. Alternatively, they could make judgements that have circumscribed accuracy for them, adopting consensual criteria to assess ability.

Either strategy is normally appropriate. However, within the confines of the paradigm used to investigate the correspondence bias, in the present instance only those who used a normative model or who refused to rate the questioner or contestant at all, could be said to have avoided committing the correspondence bias.

The reasons that subjects gave for assigning a rating to the questioner or contestant indicated that they did use strategies of circumscribed accuracy in determining a rating. Both strategies are logical; it may be that the biased nature of the paradigm and the demand characteristics implicit within it, beg the committal of the bias it is designed to test.

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APPENDIX A: THE QUIZ QUESTIONS

1.What is the name of the famous extinct volcanic crater located at the southern edge of Waikiki, Honolulu?
Answer: Diamond Head.

2.In what U.S. state is Fort Worth?
Answer: Texas.

3.What is the name of a catamaran type vessel with three hulls?
Answer: Trimaran.

4.Which ground nut is used for making marzipan?
Answer: Almonds.

5.Which British monarch was known for saying "We are not amused"?
Answer: Queen Victoria.

6.A C.P.U. is the name given to the processing unit of a computer, what do the initials C.P.U. stand for?
Answer: Central Processing Unit.

7.In what country was golf player Gary Player born?
Answer: South Africa.

8.Hammer Films is known for making what type of movies?
Answer: Horror movies.

9.In chess the piece known as the knight is represented by what animal?
Answer: The horse.

10.Which English actor played Frank Spencer in 'Some mothers do have em' and went on to star in 'Phantom of the opera.'
Answer: Michael Crawford.

APPENDIX B: CONSENT FORM AND QUESTIONNAIRE

RESEARCH ON IMPRESSION FORMATION

CONSENT FORM

What would I have to do?

Participants will be asked to complete a simple questionnaire and answer a series of oral questions concerning their perceptions of a video re-enactment of an experiment. This should take around 20 minutes to complete.

What can I expect from the researchers?

All particpants :

* have the right to refuse to answer any particular question, and withdraw from the study at any time.

* provide information on the understanding that it is confidential to the researchers. All questions are identified only by code number, and are seen by the researchers. It will not be possible to identify individuals in any published reports.

* will receive a summary of the research findings after the information has been analysed.

The details of the study have been adequately explained to me, and I wish to participate under the conditions set above.

signature of participant ----------

signature of researcher ----------

date -------

IMPRESSION FORMATION QUESTIONNAIRE
APPENDIX B (Cont.): GENERAL KNOWLEDGE ABILITY RATINGS QUESTIONNAIRE

The following questions ask you to make judgments about the two people you have been watching in the general knowledge experiment. Think carefully about your impressions of the "questioner" and the "contestant" before answering.

For each question make a rating from between 0 and 100.
Use the following scale as a guide.

much less than average		average		much more than average
. . . . .	. . . . .	.	. . . . .	.
0%		50%		100%

1. Compared to the average Massey student rate the CONTESTANTS'ability to remember isolated facts.

. . . . .	. . . . .	.
0%	50%	100%

2. Compared to the average Massey student rate the CONTESTANTS' general knowledge ability.

. . . . .	. . . . .	.
0%	50%	100%

3. To what extent did you like the CONTESTANT?

. . . . .	. . . . .	.
0%	50%	100%

4. Compared to the average Massey student rate the QUESTIONERS' ability to remember isolated facts.

. . . . .	. . . . .	.
0%	50%	100%

5. Compared to the average Masssey student rate the QUESTIONERS' general knowledge ability.

. . . . . .
0% 50% 100%

6. To what extent did you like the QUESTIONER?

. . . . . .
0% 50% 100%

Thank you for your participation.

APPENDIX C: ORAL QUESTIONS

1. What do you think the purpose of this experiment was?

2. Was the information provided in the video useful for making an inference about the questioners' general knowledge ability?

3. Why was the information useful/not useful?

4. Was the information provided in the video useful for making an inference about the contestant's general knowledge ability?

5. Why was the information useful/not useful?

6. Why did you rate the questioner's general knowledge ability at...%?

7. Why did you rate the contestant's general knowledge ability at...%?

8. Who prepared the quiz questions that were used in the video?