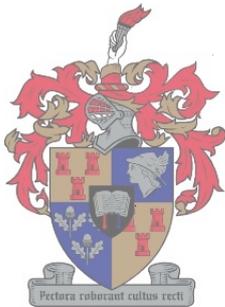


**THE OPERATIONALISATION OF ASSERTIVENESS AS A STATUS  
CHARACTERISTIC IN INFLUENCE ACCEPTANCE EXPERIMENTS**



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Arts in Clinical Psychology at the University of Stellenbosch**

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## DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and has not previously, in its entirety or in part, been submitted at any university for a degree.

Leanda Miller

8 February 2000

Date

## ABSTRACT

Expectation States Theory argues that the status information of assertiveness will affect evaluations that were made in the standard experimental setting during small group interaction. It is predicted that persons will be more influenced by assertive individuals than non-assertive individuals in a collaborative exercise. The study by Dornig (1995) did not support this assumption. Dornig ascribed it to the manner in which assertiveness were operationalised in her study, which she assumed was ineffective or inappropriate. The present study set out to find a more effective operationalisation of assertiveness to use in the standard experimental setting, which are used in studies based on Expectation States Theory. Assertiveness was operationalised in four different ways: descriptive self-statements (as used by Dornig in 1995), as well as in terms of photographic, audio and video material. These operationalisations of assertiveness were incorporated in a similar experimental setting as used by Dornig (1995), in order to allow comparison between Dornig's study and the current study. It is based on a computer program where the subjects, in collaboration with fictitious partners, try to earn points through accurate responses in a task where the fictitious ability of contrast sensitivity is measured. The partners were depicted as either assertive or non-assertive individuals by means of the different operationalisations of assertiveness. The results showed that the formulated hypotheses were not supported by the current study and that assertiveness did not influence the decision making process. The subjects could distinguish whether the partners were depicted as assertive or not. According to this, the conclusion can be drawn that the four

operationalisations were indeed effective. The findings are discussed and certain recommendations are made.

## OPSOMMING

Volgens die "Expectation States Theory" sal statusinligting oor assertiwiteit die evaluerings wat tydens kleingroep-interaksies gemaak word, beïnvloed. Daar word voorspel dat persone meer beïnvloed sal word in hulle samewerking met andere deur assertiewe persone as deur nie-assertiewe persone. Die studie van Dornig (1995) het egter nie ondersteuning vir hierdie aanname verskaf nie. Dornig het dit toegeskryf daaraan dat die wyse waarop assertiwiteit in haar studie geoperasionaliseer is, nie effektief was nie. Die huidige studie het derhalwe dit ten doel gestel om 'n meer effektiewe operasionalisering van assertiwiteit te vind, wat ook bruikbaar sal wees binne die raamwerk van die standaard eksperimentele situasie, wat gebruik word in ondersoek gebaseer op "Expectation States Theory". Assertiwiteit is op vier verskillende wyses geoperasionaliseer, naamlik self-beskrywende stellings (soos gebruik deur Dornig in 1995), asook in terme van fotografiese, klank en videomateriaal. Hierdie operasionaliserings is gebruik in 'n soortgelyke eksperiment as wat deur Dornig (1995) gebruik is, om sodoende die vergelyking tussen Dornig se studie en die huidige studie te vergemaklik. Dit is gebaseer op 'n rekenaarprogram waar die proefpersone, in samewerking met fiktiewe spanmaats, poog om punte te verdien met akkurate response in 'n taak wat die fiktiewe vermoë van kontrassensitiwiteit toets. Deur middel van die verskillende operasionaliserings is die spanmaats voorgestel as assertiewe of nie-assertiewe persone. Die resultate toon aan dat die hipotese wat gestel is nie ondersteun is nie en assertiwiteit nie die besluitnemingsproses beïnvloed het nie. Proefpersone kon wel goed onderskei of spanmaats voorgestel is as assertief of nie. Op grond hiervan

kan die afleiding gemaak word dat die vier operasionaliserings van assertiwiteit wel effektief was. Hierdie resultate word bespreek en sekere voorstelle vir toekomstige studies word gemaak.

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**The article format of this thesis is in  
accordance with the requirements of  
the Department of Psychology**

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## **1. INTRODUCTION**

### **1.1 Introduction**

Assertiveness can be observed in differing degrees in people engaged in an interpersonal interaction. At the one end of the continuum very dominant or aggressive behaviour can be found, with submissive and self-effacing behaviour on the other. As a general rule, it is accepted that assertive behaviour is the golden midway – an interaction pattern where the individual is neither aggressive nor submissive, but rather firm on his/her interests, still accommodating to the needs of others.

In South Africa, with the first democratic government taking office in 1994, different programs have been introduced to restore the imbalances that resulted from racially discriminatory practices from the past. Both the Equity Bill and the Skills Development Act were passed by parliament at the beginning of 1998. The new legislation does not only promote the upward mobility of previously disadvantaged groups, but also ensures that employees will become equipped with the necessary skills to perform optimally in their positions. Many black South Africans are now in managerial positions that force them to be able to influence their subordinates, which most likely also include white South Africans. It is therefore in the author's opinion of importance that, when faced with a culturally diverse group of people working together to achieve a mutually beneficial end goal, people on all levels should acquire the skill to influence subordinates and authority figures effectively to promote the successful attainment of the end goal.

According to Expectation States Theory, people working together within a group tend to ascribe a value to other's opinions based on several different characteristics. Characteristics like gender, race, attractiveness and assertiveness are postulated to play a role in decision-making and influence acceptance (Berger, Cohen & Zelditch, 1972).

In a study on the effect of race and assertiveness on influence acceptance, Dorning (1995) found that only race had a significant effect and not assertiveness. She found it problematic to conclude that

assertiveness as a status characteristic did in fact not have an effect, because it was possible that her operationalisation of assertiveness as a status characteristic was inappropriate. The question remained whether her subjects judged assertiveness to be irrelevant to the test situation or whether assertiveness was represented inappropriately in the experiment. It is therefore necessary to examine if there are more appropriate ways to operationalise assertiveness within standard Expectation States experiments.

## **1.2 Description of the research question**

The study by Doming (1995) on the effects of race and assertiveness on active and passive influence could not demonstrate that assertiveness had a significant effect, contrary to what was expected. She concluded that it was possible that the operationalisation of assertiveness (statements presented as self-descriptions of the person's own assertiveness), was an inappropriate representation of assertion and affected the negative outcome of the study. The aim of the present study is thus to investigate more appropriate operationalisations of assertiveness that would enable researchers to know with more certainty if assertiveness has an effect in experimental settings.

## 2. EXPECTATION STATES THEORY

According to Berger et al. (1972) Expectation States Theory is focused on how people influence each other in small task-oriented groups. In the research it was found that during these interactions between members of a group a power-prestige order comes to being. This power-prestige order represents the inequalities between group members that exist outside the group, and that in fact these expectations that are formed about the performance of members are self-reinforcing. The power-prestige order developed out of a group of people who started out with equal status, which then developed into inequalities to participate in group interaction, in participation itself and also in influence over the group's decision (Berger, Rosenholtz & Zelditch, 1980). Expectation States Theory identified a process whereby the status of a person that is external to a particular interaction and not part of the task being assessed, was taken from the external environment into the group and was allowed to determine the outcome of the interaction within the group.

The work of Berger concerned two general processes: firstly, the social conditions affecting an individual's formation of performance expectations; and secondly, how the expectations held by the individual affects the subsequent interaction in the group. The more favourable the observable features of the individual, the higher the expectation given to the person and (a) the more likely he is to receive and accept a chance to perform; (b) the more likely he is to receive agreement and esteem from the other members; (c) the more likely his performance are to be evaluated positively and (d) the less likely he is to accept influence from others (Berger & Fisek, 1970).

Expectation states arise out of interaction between people, but can also be created through prior beliefs about and evaluations of the characteristics possessed by members of a group (Berger, et al., 1972). A good example is the rigid racial stereotypes held by people and reflected in daily interactions.

### 3. STATUS CHARACTERISTIC

According to Expectation States Theory, individuals with different status characteristics ascribed to them will perform differently in certain interactions with other members of a group. A status characteristic is any characteristic of actors around which evaluations of and beliefs about them come to be organised (Berger, et al., 1980). According to Berger et al. (1980) a status characteristic is any characteristic of an actor that has two or more states that are differentially evaluated in terms of the honour, esteem or desirability. Each of these states is associated with distinct moral and performance expectations, in other words with stabilised beliefs about how an individual with a given state of the specific characteristic will perform or behave.

A distinction can be made between specific and diffuse status characteristics. A specific status characteristic involves two or more states that can be differentially evaluated and with each of the states there are a specific expectation associated with it, for example reading ability. A diffuse status characteristic also involves two or more states that can be differentially evaluated, but with each state there are distinct sets of specific expectation states, each itself evaluated and with each state is a similarly evaluated general expectation state. An example of this is the fact that males and females are differentially evaluated, with maleness better mathematical abilities are expected and this expectation triggers the expectation that males are more intelligent than their female counterparts. Expectation states are general or diffuse if they are not restricted to any specific situation (Berger, et al., 1980).

Different status characteristics have been used and operationalised in experiments according to the literature, for example race, ethnicity, age, gender, occupation, physical attractiveness, intelligence quotients, reading ability and many others. It has been demonstrated that females in a group have less influence than males (Lockheed, 1985; Lockheed & Hall, 1976; Meeker & Weitzel O'Neill, 1977, Sagrestano, 1992 cited in Berger & Zelditch, 1993). The same holds for the interaction between different races, e.g. blacks and whites (Cohen, 1972, Katz & Cohen, 1962; Webster & Driskell, 1978 cited in Berger & Zelditch, 1993). Riches and Foddy (1989) showed that differences in ethnic accent are sufficient to establish differences in influence. Rosenholtz and Cohen (1985) illustrated that visible

ethnicity is a necessary precondition for influence differentials. Effects of occupational status on interactions in a group have been reported by Caudill (1958) and Strodtbeck, James & Hawkins (1957) (both cited in Berger, Fisek, Norman & Zelditch, 1977). The effects of physical attractiveness have been studied, indicating that less attractive people have less power to influence (Kalick, 1988, Webster & Driskell, 1983 both cited in Berger & Zelditch, 1993).

Expectation States Theory is a theory based on the interaction and outcome in small group task oriented interaction. It works from the premise that status inequalities evolve from the larger social conditions where evaluative opinions are formed. These evaluative opinions or expectations are brought into the context of the small group, despite the fact that it might be irrelevant to the task at hand. Status characteristics are at the core of expectation states theory and can be defined as a characteristic where two or more states can be identified. Different evaluations are associated with these different states of each status characteristic.

#### 4. STANDARD EXPERIMENTAL SETTING

It is of importance to understand the context in which these status characteristics have been tested experimentally. Many Expectation States Theory experiments were performed in a setting called the "standard experimental setting", where participants were placed in separate cubicles, or are at least separated in such a way that no personal contact exists between participants, other than the simulated contact that is controlled by the experimenter. Each participant has a panel at his disposal with some buttons and light bulbs attached to it (Berger, et al., 1977).

The experimental equipment is explained to the subjects, followed by an explanation of the collaborative nature of the exercise - that is, that the subject will be working with another participant in a later phase of the experiment. The participants are firstly confronted with a task about which they are told that it assesses a new and important ability, which in actual fact is a fictitious ability. The task is constructed in such a manner that both answers are equally probable. The participants give their answers by pressing one of the buttons in front of them at which a corresponding bulb lights up. After a number of items, which form the individual task, subjects receive their own scores as well as their partner's scores. With the investigation of diffuse status characteristics the manipulation usually consists of an emphatic announcement about the participant's relative status position on the characteristic under investigation. In such experiments the participants must make some practice-trials on the task.

After the status manipulation, the participants perform a collective task in which it is suggested that they are cooperating with the partner who was introduced earlier. The objective of this part of the experiment is to determine to what extent the participant will be influenced by his partner. At each trial the participant gives an answer that is considered preliminary. He is then shown the answer which the partner supposedly has given to simulate communication that actually does not exist. The partner's answer is manipulated in such a way that it differs from the subject's answer on certain pre-established trials (critical trials). Thus, for each subject there is an identical pattern of critical and non-critical trials for which it is indicated that he and his partner (dis-)agree. In the current study the standard experimental setting was adjusted in such a manner to give predetermined answers to the subjects' preliminary

answers. After receiving the partner's answer, referred to as the specific stimulus, the subject is given the opportunity to reconsider his answer. It is suggested that the partner is given the exact same instructions. A reward is promised for correct answers, while only the definite answers of subject and partner count. This reward, in the form of points, is higher when both persons give the correct answer, than when just one of the dyad provides a correct answer. Both the promise of collective rewards and the experimenter's emphasis on the importance of considering all the available information, contribute to the collective orientation of the subjects. It can be assumed that under these conditions the subjects' only motivation is to collect as many points as possible.

The degree to which their partners are influencing the subjects, is assessed through counting the number of times the subject does not change his answer after exposure to his partner's answer.

## **5. ASSERTIVE BEHAVIOUR**

### **5.1 Definition of assertive behaviour**

Assertive behaviour reflects confidence, competence, influence over others, power and authority. According to Alberti and Emmons (cited in Van der Westhuizen & Pieters, 1988, p.1) "assertive behaviour enables a person to act in his or her own best interest, to stand up for herself or himself without undue anxiety, to express honest feelings comfortably, or to exercise personal rights without denying the rights of others." Schmidt and Yeh (1992) describe assertive behaviour as one of seven leadership influence strategies that they derived from the Profile of Organizational Influence Strategies (POIS Form S). The assertive strategies which managers use toward their subordinates include demanding in no uncertain terms, directing subordinates to do what the actor wants, proposing better ways of completing a task, setting of time deadlines, reprimanding to indicate seriousness, reminding subordinates of what is wanted and pointing out rules requiring compliance.

Gilbert and Allan (1994) pointed out that there has not been a clear definition of assertiveness, but that it rather refers to a number of different dimensions which include the ability to express oneself without anxiety, anger or aggression in different interpersonal situations, especially in situations of potential conflict of opinions, needs or rights. Lineham and Egan (cited in Gilbert & Allan, 1994) consider self-expressiveness and standing up for one's rights as among the most frequently reported dimensions of assertive behaviour.

In that respect assertive behaviour differs from aggressive and submissive behaviour styles. A person who is assertive is aware of his own thoughts, preferences, and feelings and is able to communicate them openly and directly. According to the behavioural model assertiveness is situation specific and a distinction can be made between positive and negative assertive behaviour (Van der Westhuizen & Pieters, 1988).

In order to get a clear operationalisation of assertiveness it is important to examine the different components of assertiveness. Rakos (1987) describes different components of assertive behaviour, namely verbal, non-verbal, cognitive, emotional and a physiological component.

Difference of opinion exists with regard to the verbal content of assertive responses and in earlier research the assertive verbal response was chosen at face value rather than on an empirical basis (Van der Westhuizen & Pieters, 1988). The result was that initially a clear distinction between an assertive and an aggressive verbal response was difficult to make. The content of an assertive verbal response, according to the definition of assertiveness accepted, is an honest and direct representation of the speaker's feelings, thoughts and beliefs in accordance with his basic personal rights. Research found that assertive responses that contained a phrase of cordiality and approachability are just as effective as when the phrase is omitted. It was also found that assertive responses are usually longer, allow fewer acceptances of the other person's demands and more requests are rendered for change in the other persons behaviour. Assertive verbal responses can be divided in different components: acknowledgement of the conflict present, requests to change existing behaviour, emphatic statements, threats, assertive repetition and apologetic statements (Van der Westhuizen & Pieters, 1988).

Aspects like eye contact, facial expression, body posture and gestures, speech activity, volume of speech and interpersonal distance have been used to describe the non-verbal component of assertive behaviour. It is very important that the verbal and non-verbal content of an assertive message correlates. If it does not, the receiver of the message will most probably take more notice of the non-verbal content, because it is more difficult to manipulate than the verbal content (Van der Westhuizen & Pieters, 1988).

In assertiveness research attention was initially directed solely at the learning of overt behaviour skills. Later research began to include a cognitive component. It was found that people who were more assertive used more positive self-instructions and had less dysfunctional cognitions than less assertive people. People who have a need for approval, high self-expectations, and want to remove problems instead of confronting them, tend to be less assertive in their interactions. Self-efficacy, the ability to

realistically evaluate the consequences of behaviour and ability to formulate goals clearly are characteristic of more assertive behaviour (Van der Westhuizen & Pieters, 1988).

Wolpe (cited in Van der Westhuizen & Pieters, 1988) introduced the physiological/ emotional component of assertive behaviour. According to his research on reciprocal inhibition, assertiveness inhibits anxiety and people with less anxiety are more assertive. It is an accepted fact in psychology that anxiety leads to less effective performance, but it was found by Twentyman, Gibralter and Inz (1979) that the distinction between assertive and non-assertive behaviour can solely be made on the cognitive and behavioural components.

## **5.2 Assertiveness as a status characteristic**

Lee and Ofshe (1981) started a longstanding debate of demeanour versus status characteristic. This debate becomes relevant when discussing assertiveness, seeing that assertiveness as a status characteristic has different states which are observable through various means to the person/s with whom the actor interacts. The states of assertiveness can be viewed as assertive, aggressive or submissive; or more simply as either assertive or non-assertive.

Lee and Ofshe (1981) introduced the two-process theory: "a simplified statement of the explanation for the interrelation of general social status, dominance, and influence developed in this approach assumes that variations in demeanour are typically correlated with variations in relative social status. Variations in assertiveness and other components of demeanour explain attainment of relative position in the dominance order that develops early in a work session. Further, the variation in demeanour is the cause of differential influence when variables such as the quality of the argument and the tactics of argumentation are controlled." (p. 76). According to the two-process theory it is not only the differential evaluation of the status characteristics that leads to a power-prestige order. When internal cues are weak or unclear, an individual's behaviour will largely be regulated through responses to stimuli in the environment. In essence it means that a person in a social situation will react in accord to previously learned responses to the stimuli present in the behaviour of others.

They conducted an experiment in which both status and demeanour were manipulated. A person with high, moderate or low occupational status (the status manipulation) behaved in either a deference demanding, or a deferential or neutral manner (the demeanour manipulation). The results pointed mainly to demeanour effects. On that account, it was argued that the support for the assumption of the Expectation States Theory, that status is the most important determinant of influence differences, is based on results of experiments in which the status information was the only cue subjects had, and it therefore overlooked demeanour as the most important determinant (Dorning, 1995).

Lee and Ofshe (1981) argued that demeanour is the determinant of differences in dominance and influence and thus tried to reduce the importance of status differences. There were, however, some methodological shortcomings in the Lee and Ofshe experiment, most importantly that the demeanour presentation was so strong, and the status manipulation so weak, that it may easily account for the absence of any status effects. Further, the subjects in this experiment did not interact with other participants, nor was any interaction suggested. This is contrary to the standard Expectation States Theory experiments.

In a later experiment Tuzlak and Moore (1984) concluded that to argue that demeanour is the only determinant of interpersonal influence overlooks important status-based social inequalities. Mohr (1986) argued that demeanour characteristics might be "social markers" or sources of status information - which provides a link between the two apparently exclusive concepts. Sherman (1983) pointed out that the observation that demeanour has effects on group interaction and on influence differential, was not new in itself. It could be explained within the framework of Expectation States Theory, because it explicitly acknowledged demeanour as a variable that can effect influence differentials. Ridgeway, Berger and Smith (1985) included demeanour, that is assertiveness also, as a status indicator for which predictions are made that are identical to those made for different positions on other status characteristics.

Different studies have assessed the specific non-verbal and the verbal components of demeanour or assertiveness (Dorning, 1995). The presentation of assertiveness as a status characteristic was experienced as quite problematic. In order to obtain a clear and reliable presentation of assertiveness,

reliance could not be made on individual specific components. Dorning (1995) operationalised assertiveness in the form of self-statements from a questionnaire about the perceived level of own assertiveness. In this manner nothing could be inferred relating to demeanour and the many personal components of assertiveness. According to the results of her study assertiveness did not have a significant effect on passive influencing, which might be a result of an inability to represent assertiveness in a clearer and stronger manner. The aim of the present study is to find a way of operationalising assertiveness, and therefore also non-assertiveness in a more effective manner. It is deemed necessary to be able to represent non-assertiveness effectively as a contrasting variable to assertiveness in order to evaluate if a specific representation of assertive behaviour is effective or not.

## 6. OPERATIONALISATION OF ASSERTIVENESS

The present study sets out to find a more appropriate way to represent assertiveness in the standard experimental setting. Dorning's study (1995) indicated that the operationalisation in the form of self-statements was either not appropriate in the standard experimental setting or that assertiveness did not have an effect on influence acceptance.

It is important not to lose non-assertiveness out of sight, seeing that if non-assertive behaviour is not represented appropriately in this experiment, we cannot make conclusions on the different status positions of assertiveness as a status characteristic. In this experiment non-assertive behaviour is seen as the opposite of assertive behaviour. Non-assertive behaviour (submissiveness) is also a status characteristic, which should also influence the partner, but into the opposite direction as assertiveness. For research purposes, non-assertive behaviour in this experiment is equated to behaviour representing submissive behaviour, rather than aggressiveness.

A possible more appropriate manner to represent assertiveness is through the use of a verbal message from one partner to another. Kimble and Seidel (1991) in their study on the vocal signs of confidence, demonstrated that vocal loudness and response latency correlated with the confidence of the speaker. When people were confident in what they were saying, that confidence was reflected in louder speech and faster response times. The study also revealed that assertive people tended to respond faster when they were confident of their answers, and as a rule spoke louder. In that sense trait assertiveness seems to be linked to loudness and latency the same way that transitory confidence is. This could be built into the standard experimental setting to convey assertiveness.....

Kimble and Seidel (1991) further assumed that there were several ways that a person could convey confidence in what he was saying, for example through verbal presentation ("I am positive that...", "I am absolutely certain that..."). They felt however that these overt indicators of confidence were sometimes mistrusted in the presence of non-verbal indicators to the contrary. In the present study, verbal

presentations of confidence could be used through manipulating such non-verbal signs to correlate with the verbal message.

Non-verbal signs of assertiveness can also be built into the experiment in the form of few speech disturbances, lower pitched tone of voice and faster speech rate (Kimble & Seidel, 1991). This would also be in accordance with Wolpe's contention that assertive people have less observable anxiousness. A trembling voice, could for instance, be used to show non-assertiveness.

A more elaborate verbal exchange between partners would enable the partner to use different influencing strategies. Guerin (1995) cited Schriesheim and Hinkin's questionnaire on influence tactics. Their questionnaire provided six reliable factors: Exchange, Ingratiation, Rationality, Assertiveness, Upward Appeal and Coalitions. Assertiveness was described as a mixture of emotional influence and confrontation. This influencing strategy could be used in the experiment in a written or verbal form, which can be given before the start of the formal trials and can be exchanged by the subject and his non-existent partner.

## **7. OBJECTIVES OF THE CURRENT STUDY**

The current study attempted to find a more appropriate operationalisation of assertiveness which could be used in the standard experimental setting, but which also might have a broader implication in applications such as assertiveness training. According to Expectation States Theory it is expected that if assertiveness can be effectively represented in the standard experimental setting, subjects will be more influenced by that person's response than by a less assertive person.

### **7.1 Objectives**

The overall objective of this study is to find a more appropriate operationalisation of assertiveness than which was used in Dornig's study (1995), namely self-statements. In the context of the preceding literature review, the following objectives can be identified:

- To assess whether the presentation of photos (assertive and non-assertive) in the standard experimental setting is an appropriate operationalisation of assertiveness.
- To assess whether the presentation of audio material (assertive and non-assertive) in the standard experimental setting is an appropriate operationalisation of assertiveness.
- To assess whether the presentation of video material (assertive and non-assertive) in the standard experimental setting is an appropriate operationalisation of assertiveness.
- To compare the appropriateness of the presentations of assertiveness by means of photo material, audio material or video material as alternative operationalisations of assertiveness.

## **7.2 Hypotheses**

The following specific hypotheses were formulated:

### **7.2.1 Hypothesis 1**

Subjects will accept more influence when presented with the photo material of an assertive partner than when presented with the photo material of a non-assertive partner.

### **7.2.2 Hypothesis 2**

Subjects will accept more influence when presented with the audio material of an assertive partner than when presented with the audio material of a non-assertive partner.

### **7.2.3 Hypothesis 3**

Subjects will accept more influence when presented with the video material of an assertive partner than when presented with the video material of a non-assertive partner.

### **7.2.4 Hypothesis 4**

The operationalisation of assertiveness by means of photo material is more appropriate than the use of self-descriptions.

### **7.2.5 Hypothesis 5**

The operationalisation of assertiveness by means of audio material is more appropriate than the use of photo material.

### **7.2.6 Hypothesis 6**

The operationalisation of assertiveness by means of video material is more effective than the use of audio material.

## **8. METHOD**

### **8.1 Overview**

A similar method as used in Dorning's study (1995) was incorporated in this study. It was similar in the sense that it included the use of a computer program, it made use of the same exercise, the same population is used and participation was voluntary. It differed in the sense that only the influence acceptance part and not the influence exertion part of the programme was used, the rationale being that only the assertive variable was to be measured, and that the new operationalisations of assertiveness had to be included in the exercise. The inclusion of the new operationalisations of assertiveness necessitated the use of microphones and headphones for both the audio and video material.

### **8.2 Experimental design**

In the experimental design subjects were assigned to a control group or to one of eight experimental groups. Operationalisations of assertiveness in the assertive versus non-assertive condition were done by means of self-descriptions, photo material, audio material or video-material. To analyse the effect of assertiveness, an assertive and a non-assertive group were compared to the control group. The differences between the groups were statistically analysed by a linear combination of the assertiveness stimuli, as well as per stimulus.

### **8.3 Assertiveness presentation**

Five different operationalisations of assertiveness and non-assertiveness were utilised in the current study.

### **8.3.1 Self-Descriptions**

The original method of Dornig (1995), that is the self-descriptions of an assertive and non-assertive person, was also incorporated in the present study. It was necessary to be able to compare the results from the present study with the original results by Dornig (1995). The self-descriptions were as follow.

The description of the assertive person:

- I am the type of person that will start a conversation with a person I don't know, if I feel that I would possibly like him or her.
- I am a person that usually takes the lead in a group of people.
- When my neighbour's stereo is disturbing me, I would call and ask if he would turn it down.
- In a job interview I would state both my positive and negative points.
- In a discussion with a small group of people, I will state my point of view and I am willing to discuss it, but do not feel it is necessary to win the argument.
- When the person, sitting next to me in a movie, explains the plot of the movie to his companion, I will ask them to please be quiet as they are disturbing me.

The description of the non-assertive person:

- When I try to talk to someone of the opposite sex, I get very nervous.
- If my neighbour wanted to borrow my car, I would lend it to him even though I would rather not.
- When I have to speak in front of a group, I get so nervous that I have a great deal of difficulty to speak clearly.
- In a group situation I will usually wait to see what the majority of people want before I give my opinion.
- I find it hard to differ from people in authority positions.
- I will accept a lecturer's opinion about my lack of responsibility, but will afterwards complain to my friends about his unfairness.

These descriptions were derived from the Personal Assertion Analysis. The statements from the Personal Assertion Analysis were grouped in order to portray one group with high assertive responses and another group with passive or low assertive responses.

### **8.3.2 Photographic Presentation**

A photo of a fictitious partner was shown at the beginning of the experiment, as in the previous operationalisation. It was different in the sense that it was not a neutral photo, but a photo in which body language was detectable. According to Rakos (1987), eye contact, facial expressions, gestures and body language are non-verbal indicators of an assertive or non-assertive attitude. The same person, dressed in the same clothes, was used to represent both assertiveness and non-assertiveness in order to exclude the possibility of any other variables being taken into consideration by the subject. A person of an age group similar to the student population was used to exclude age as a contaminating variable.

Assertiveness was conveyed by use of the following:

- Eye contact - looking straight at the camera.
- Up right body posture
- Hands on his hips.
- Neutral facial expression.

Non-assertiveness was conveyed by use of the following:

- No eye-contact
- Slouched posture
- Hands in a protective gesture in front of the body
- Nervous, worried facial expression.

### 8.3.3 Audio Presentation

There are certain indications that assertiveness can be demonstrated by the verbal component of behaviour. Rakos (1987) identified the content and the paralinguistic aspects of messages as indicators. The content refers to the message being conveyed, while the paralinguistics refer to the vocal characteristics. These verbal messages were presented throughout the run of the computer program. It is necessary that the subject is convinced that he communicates with his partner by making use of a microphone.

Rakos (1987) defines content further by stating that it encompasses the expression of rights and elaborations or the lack thereof in the case of non-assertive messages. Gilbert and Allan (1994) stated that "submissive behaviour is generally taken as behaviour that involves increased tension and inhibition..." (p.296)

Therefore the following messages were used as representations of assertiveness:

- I am certain that the answer is...
- The answer is definitely...
- I am positive about this answer.
- I am one hundred percent sure that this is the answer...
- I am sure the answer is...

The following messages were used as representations of non-assertiveness:

- I am not sure what the answer is.
- I am not very good at this, but think the answer is...
- Maybe the answer is...
- I will try, but I am not sure...
- I don't know, let's say it is...

It was however necessary that the difference between assertiveness and non-assertiveness also be demonstrated para-linguistically. This means that the assertive messages had a shorter response latency, the response duration was longer, that there was response fluency, the volume, as well as the voice intonation and the tone were moderate (Rakos, 1987). The opposite was to be true for the non-assertive message.

#### **8.3.4 Video Presentation**

The fourth operationalisation was a combination of methods 1, 2 and 3. This was presented in the form of video material incorporated into the existing computer programme. This option is necessary to make use of most of the subject's senses - verbal and non-verbal messages were shown at the same time. The body posture and verbal messages, which are indicative of assertiveness and non-assertiveness, were combined, as well as assertive and non-assertive self-descriptions. The same person used for method 2 and 3 was used in the video presentation to rule out the role of any other variables.

#### **8.3.5 Control**

The control group were subjected to the same computer program as the experimental group. They were under the impression that they were working with partners, albeit fictitious, but no information about these partners was made known to the subjects in the control group.

### **8.4 Subjects**

Eighty-four white male students from the University of Stellenbosch, between the ages of 18 and 28, were asked to participate in the experiment on a voluntary basis. The subjects were assured of complete anonymity in the experimental setting.

Ten subjects were exposed to no information with the regard to assertiveness and 18 subjects were exposed to information with regard to assertiveness in the way that Dorning (1995) operationalised assertiveness. The remaining 56 subjects were divided into three groups of 16 each which were exposed to an alternative operationalisation of assertiveness each.

## 8.5 Procedure

The standard Expectation States Theory experimental setting was used in a similar manner as Dornig (1995) used in her study. Each subject completed the experiment without having contact with the other subjects. It was explained to the students that they would work together with a partner to attain the best score. The subjects were randomly assigned to one of the following conditions: no information, (non-) /assertive video material, (non-) /assertive sound information, (non-) / assertive photo's or lastly (non-) /assertive self-description.

The subjects were told that their ability of contrast-sensitivity would be measured. Although the ability was actually fictitious, it was conveyed in such a manner that it seemed significant in the experimental setting. The task was designed in such a way that it was impossible to determine the correct answer within the time provided. The task was therefore highly ambiguous and consisted of a number of trials. At each trial the subject had the opportunity to determine how many blue blocks were present on a yellow background within a five second interval. The subjects were told that the range of response possibilities varied between 70 and 140 in order to increase the credibility of the answers of the fictitious partner. The fictitious partner's predetermined answers were: 120, 130, 140, 78, 123, 85, 112, 138, 109 and 110. The subject was thus exposed to ten different stimuli in the experimental setting.

After giving his answer, the subject had the opportunity to change his answer with the knowledge of his fictitious partner's answer. It was made clear to the subject that he could change his answer, but it was not necessary to do so.

The experiment was conducted in the Language Laboratory of the University of Stellenbosch, where the necessary computers with sound and video facilities were available. To ensure complete anonymity in the completion of the exercise, subjects were not allowed to sit right next to each other. This precaution prevented subjects from recognising the other subjects 'partners'.

A number of checks on manipulation were built into the programme to evaluate if the subjects could distinguish between assertive and non-assertive partners. The subjects had to answer the following questions after completion of the experimental task:

- Was your partner presented as domineering or passive?
- Did you experience your partner as more domineering, less domineering or the same as you?
- How do you think your partner performed in the experiment: better, worse or in between?

The subjects were also informed afterwards of the objective of the experiment, namely, to determine the most appropriate representation of assertiveness within the standard experimental setting. They were told that contrast sensitivity is a fictitious ability and that all answers were equally probable due to the ambiguous nature of the exercise.

The use of the computer in the experiment could be justified because it conformed to the standard experimental setting of Status Expectations Theory, as well as to the method used in the study by Dorning (1995). Added benefits to the use of the computer in psychological research is the precision regarding the timing of the experiment and the presentation of stimuli, the complete control which it provides over certain dimensions of the stimulus material (for example the frequency of auditory tones and the uniformity of visual displays) and that the experimenter effects can be at least partially be controlled (Bird, 1981).

## **8.6 Statistical Analyses**

There were nine different groups and ten different stimuli in the statistical analysis. It was necessary to calculate a per trial index to represent the percentage of adjustment the subjects made to their initial response after exposure to their fictitious partner's response. A repeated measure design would normally be appropriate to analyse the differences between groups and stimuli. The number of observations in the present study did not allow such analysis. Thus the differences of the groups were analysed by a linear combination of the stimuli as well as per stimulus. A one way ANOVA could have been used to test the

difference between the nine groups, with the linear combination of the stimuli as the dependant variable.

The number of observations per group were too small ( $n = 10$ ).

To analyse the effect of assertiveness, an experimental group, composed of a non-assertive and an assertive group, was compared to a control group. The difference between these groups was tested by the Mann-Whitney test, which is the most powerful non-parametric test available.

A Kruskal-Wallis test was used to analyse the overall difference between groups. Because the result of this analysis was not significant, no further pairwise analyses were conducted.

## 9. RESULTS

In the following section the results of the present study are presented.

### 9.1 Results of the Status Manipulation of Assertiveness

For every trial an index was calculated to represent the percentage of adjustment a subject made after the program provided a stimulus number. The index per trial is the ratio between the absolute difference of the post-estimation (the answer the subject gave after receiving the fictitious partner's answer) and the program stimulus (the partner's answer) and the absolute difference of the pre-estimation (the subject's initial answer) and the program stimulus (the partner's answer).

$$\text{Index per Trial} = \frac{\text{absolute (post-estimation - program stimulus)}}{\text{absolute (pre-estimation - program stimulus)}}$$

An index of 1 indicates that the subject made no adjustment after receiving the program stimulus. Thus, the smaller the index the higher the relative adjustment made by the subject. There is one exception. If the program produced a value equal to the pre-estimation the response was treated as a missing value, or otherwise known as a situation of no answer. From Table 1 it follows that in 2% of the trials the program-stimulus was similar to the pre-estimated value. Although, stimuli 1 and 2 seem to result in relative more missing values, in particular in Group 5, the assertive photo material, the number of missing values were too small to consider a significant pattern.

Table 1

**Number of Cases per Group and Stimulus when Pre-estimation Equalled the Program value**

Group	Number of Missing Values			
	Stimulus1	Stimulus 2	Stimulus 3	Stimulus 10
Control Group (1)	1	1	1	
Non-assertive Self-statements (2)				1
Assertive Self-statements (3)				2
Non-assertive Photo (4)				
Assertive Photo (5)	2	3	1	
Non-assertive Audio (6)				1
Assertive Audio (7)				1
Non-assertive Video (8)	1	2		
Assertive Video (9)				1

In Table 2 the means and standard deviations of the indexes of the control group, the combined manipulated groups (experimental groups 2 to 9), the non-assertive (groups 2, 4, 6, 8) and the assertive groups (groups 3, 5, 7, 9) are presented. The difference between the means was tested by the Mann-Whitney test, a non-parametric test for two independent samples. The results of the Mann-Whitney tests are presented in Table 3. All P values reached a level higher than 5%, implying that none of the compared groups differed sufficiently to reach a statistical significant level. Both the experimental group and assertive groups showed a trend to be different from the control group with respectively  $P = .11$  and  $P = .09$ .

Table 2

**Means and Standard Deviations of the Control Group and Various Combinations of the Experimental Groups**

Groups								
Control n = 10		Experimental Group n = 74		Non-assertive Group n = 37		Assertive Group n = 37		
Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	
0.18	0.12	0.27	0.19	0.26	0.20	0.28	0.17	

Table 3

**Difference between the Control Group and the Various Combinations of the Experimental Groups based on Mean Indexes**

	Experimental Groups	Non-assertive Groups	Assertive Groups
Control	U = 252.5 P = 0.11	U = 133.5 P = 0.09	U = 119 P = 0.09
Assertive	U = 629 P = 0.55		

In order gain more insights into these results, the differences between the individual groups were analysed. Table 4 represents the averaged index per group. As expected from the previous results, when comparing groups by their mean index over 10 stimuli, the Kruskal-Wallis test was not significant with Chi-square (8) = 14.05, P = 0.08.

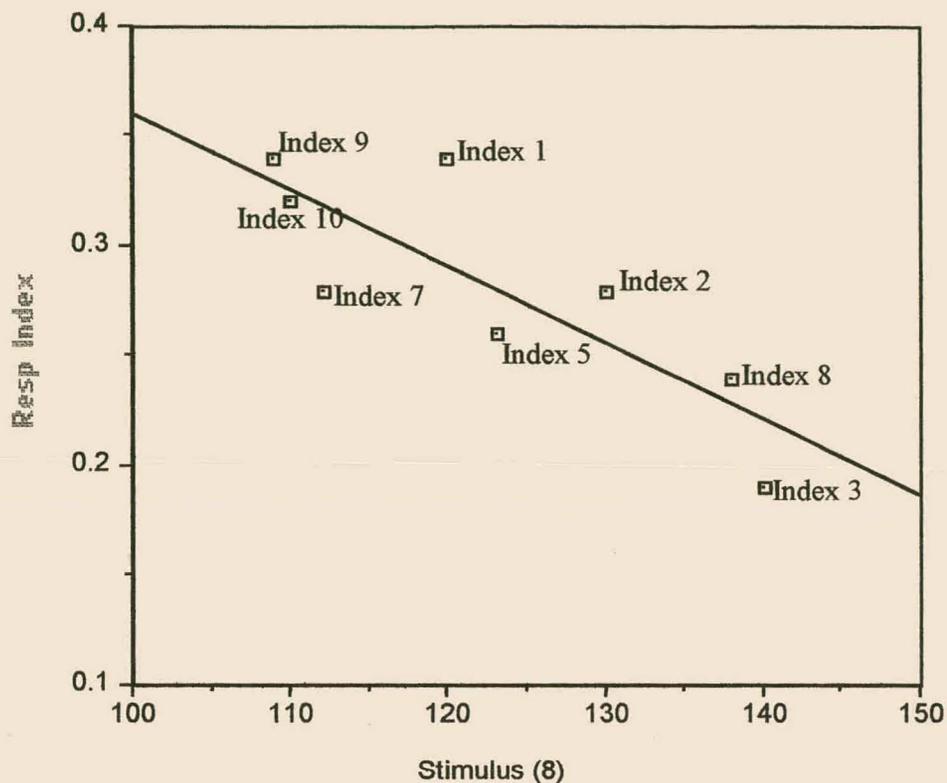
Table 4

**Results of the Kruskal-Wallis Test when comparing Groups by their Mean Index over 10 Stimuli (P=.08)**

Group	Mean Rank	Mean Index	Std. Dev
Control Group	30.75	0.18	0.13
Non-assertive Self-statements	20.28	0.15	0.24
Assertive Self-statements	42.44	0.26	0.16
Non-assertive Photo	49.56	0.29	0.15
Assertive Photo	50.1	0.32	0.2
Non-assertive Audio	47.78	0.27	0.12
Assertive Audio	49.89	0.3	0.16
Non-assertive Video	51	0.34	0.25
Assertive Video	40.22	0.25	0.17

The index formula implies that when the denominator equals the nominator, the index will be 'one'. In other words, when the pre-estimation of the subject equals the post-estimation, the index is one and thus no adjustment towards the program value is made. One expects that the post-estimation will always be smaller than the pre-estimation, if the program value has an effect (thus 1 is the highest value). Therefore the smaller the difference between the post-estimation and program stimulus, the larger the index and the smaller the adjustment. The lowest mean index (0,18) is produced by Group 2, non-assertive self-statements, with the highest relative adjustment of 82%. This sounds counter-intuitive because it implies that 'adjustment' is not influenced by the manipulation of assertiveness.

To test whether the program value rather than the manipulation of assertiveness has an effect on the responses, the relationship between the stimuli and the mean index responses were investigated. Figure



**Figure 2.** Relationship between the stimulus value and the mean response index with the exclusion of stimuli 4 and 6.

In order to evaluate the manipulation of assertiveness per stimulus, the differences between the groups per stimulus were analysed. The Kruskal-Wallis test revealed that the groups only differed significantly for stimulus 5 (stimulus value 123), Chi-square (8) = 14.37,  $P = .05$  (see Table 5). Groups, however, tended to be different for stimuli 4 and 7 (stimulus values 78 and 112) respectively Chi-square (8) = 14.69,  $P = .07$  and Chi-square (8) = 13.99,  $P = .08$ . The remaining groups reached a level of  $P > .20$ .

Table 5

**Difference between the Mean Indexes of Experimental Group per Stimulus using the Kruskal-Wallis Test (Significant levels are corrected for ties)**

Group	Stimulus 1 (p=.20)			Stimulus 2 (p=.40)			Stimulus 3 (p=.60)			Stimulus 4 (p=.07)		
	Mean Rank	Mean	Std Dev									
Control	36.94	0.32	0.18	29.28	0.13	0.27	43.61	0.21	0.23	35.75	0.15	0.29
Non-assertive Self-statements	23.74	0.18	0.27	32.28	0.15	0.29	36.83	0.17	0.23	30	0.11	0.31
Assertive Self-statements	47.22	0.41	0.29	39.06	0.21	0.24	35.06	0.08	0.15	34.94	0.09	0.18
Non-assertive Photo	54.28	0.5	0.27	46.5	0.38	0.34	46.39	0.22	0.22	50	0.24	0.2
Assertive Photo	50.44	0.45	0.34	27.36	0.02	0.04	50.89	0.3	0.27	55.05	0.34	0.28
Non-assertive Audio	42.44	0.37	0.25	46.39	0.36	0.2	34	0.11	0.23	41.61	0.14	0.18
Assertive Audio	36.72	0.31	0.38	41.17	0.34	0.3	46.22	0.29	0.32	47.67	0.38	0.42
Non-assertive Video	37.56	0.3	0.31	45.49	0.42	0.42	47.5	0.34	0.38	55.3	0.48	0.37
Assertive Video	36.22	0.31	0.23	45.56	0.42	0.42	32.33	0.08	0.09	30.11	0.03	0.09

Table 5 (Continued)

Difference between the Mean Indexes of Experimental Group per Stimulus using the Kruskal-Wallis Test (Significant levels are corrected for ties)

Group	Stimulus 5 (p=.05)			Stimulus 6 (p=.57)			Stimulus 7 (p=.08)		
	Mean Rank	Mean	Std Dev	Mean Rank	Mean	Std Dev	Mean Rank	Mean	Std Dev
Control	25.65	0.07	0.14	45.95	0.26	0.35	25.05	0.05	0.1
Non-assertive Self-statements	30.89	0.19	0.45	32.72	0.12	0.3	28.44	0.14	0.23
Assertive Self-statements	35.89	0.1	0.2	53.22	0.33	0.27	45.56	0.28	0.28
Non-assertive Photo	46.06	0.26	0.25	47.72	0.27	0.28	38.17	0.21	0.25
Assertive Photo	59.8	0.53	0.35	37.7	0.28	0.57	47	0.58	0.17
Non-assertive Audio	42.39	0.22	0.31	37.06	0.05	0.07	56.06	0.46	0.36
Assertive Audio	48.61	0.33	0.37	40.72	0.18	0.2	44.56	0.32	0.24
Non-assertive Video	50.6	0.45	0.46	48.75	0.37	0.41	46.2	0.33	0.34
Assertive Video	41.67	0.2	0.21	38.11	0.22	0.38	52.5	0.36	0.3

Table 5 (Continued)

Difference between the Mean Indexes of Experimental Group per Stimulus using the Kruskal-Wallis Test (Significant levels are corrected for ties)

Group	Stimulus 8 (p=.49)			Stimulus 9 (p=.35)			Stimulus 10 (p=.91)		
	Mean Rank	Mean	Std Dev	Mean Rank	Mean	Std Dev	Mean Rank	Mean	Std Dev
Control	33.15	0.21	0.36	34.45	0.31	0.46	35.6	0.29	0.27
Non-assertive Self-statements	28.94	0.11	0.2	27.5	0.12	0.22	36	0.29	0.39
Assertive Self-statements	42.44	0.18	0.22	41.67	0.35	0.47	46.5	0.37	0.23
Non-assertive Photo	50.33	0.32	0.29	41.17	0.32	0.4	34.17	0.22	0.23
Assertive Photo	52	0.49	0.34	42.15	0.49	0.33	47.35	0.73	0.35
Non-assertive Audio	45.67	0.24	0.25	47	0.49	0.43	38.25	0.29	0.36
Assertive Audio	42.78	0.21	0.2	54.89	0.6	0.37	42	0.36	0.38
Non-assertive Video	45.3	0.28	0.27	49.65	0.4	0.38	36.3	0.28	0.37
Assertive Video	41.56	0.29	0.36	44.17	0.38	0.3	40.69	0.33	0.35

Subsequent analysis of the differences between the control and experimental group, and between the non-assertive and assertive groups for stimuli 4, 5 and 7 revealed a significant difference between the control and the experimental groups for only stimuli 5 and 7 (see Table 6). The differences between the non-assertive and assertive groups did not reach a level of statistical significance with all  $P > 0,35$ .

Table 6

Difference between the Control Group and the Various Combinations of the Experimental Groups based on Mean Indexes

	Stimulus 4	Stimulus 5	Stimulus 7
Control x Experimental nc = 10 ne = 74	U=302.5 P=.32	U=201.5 P=.02	U=195.5 P=.02
Non-assertive x Assertive n1 n2=37	U=649.0 P=.69	U=619 P=.47	U=598.5 P=.35

The results indicate that assertiveness did not play a significant role in the decision making process, but that most of the variance can be attributed to the learning effect due to the predetermined answers of the fictitious partner.

## 9.2 Results of Checks on Manipulation

It is important to determine whether the stimuli were interpreted correctly as assertive or non-assertive for each of the different treatment groups. The results on the checks on manipulation can provide valuable information regarding the effectiveness of the operationalisations, and therefore deserves further investigation.

Table 7

Check on Manipulation: "Was your partner domineering or passive?"

Treatment		Domineering	Passive	No answer
Control		3	7	0
Self-description	Assertive	7	2	0
	Non-assertive	2	6	1
Photo	Assertive	6	4	0
	Non-assertive	4	5	0
Audio	Assertive	8	1	0
	Non-assertive	0	9	0
Video	Assertive	6	2	1
	Non-assertive	2	6	2
Total		38	42	4

Table 8

Check on Manipulation: " Did you experience your partner as: more domineering, less domineering or the same as you?"

Treatment		More Domineering	More Passive	Same	No answer
Control		3	3	4	0
Self-description	Assertive	7	0	2	0
	Non-assertive	1	2	5	1
Photo	Assertive	5	4	1	0
	Non-assertive	0	3	6	0
Audio	Assertive	4	1	4	0
	Non-assertive	0	5	4	0
Video	Assertive	1	2	5	1
	Non-assertive	1	2	6	1
Total		22	22	37	3

Table 9

Check on Manipulation: "How do you think your partner performed in the experiment?"

Treatment		Better	Worse	In between	No answer
Control		2	7	1	0
Self-description	Assertive	1	3	5	0
	Non-assertive	2	5	2	0
Photo	Assertive	3	3	4	0
	Non-assertive	0	4	5	0
Audio	Assertive	1	4	4	0
	Non-assertive	0	6	3	0
Video	Assertive	0	7	2	0
	Non-assertive	0	5	5	0
Total		9	44	31	0

### 9.2.1 Control Group (No information)

In the control group 70% of the subjects experienced their fictitious partner as non-assertive or passive and 30% as assertive or domineering. In addition to this, 40% of the subjects experienced their partner as having the same level of assertiveness as themselves, 30% as more passive than them and 30% as being more domineering. Seventy percent of the subjects perceived their partner's performance as worse than their own.

### 9.2.2 Non-assertive Self-description

Sixty-six percent of the subjects exposed to the non-assertive self-descriptions experienced their partners as being passive/non-assertive; while 22% experienced the partners as being assertive.

Of the subjects, 55% viewed their partner's performance being the same as theirs, 22% as more passive and 11% viewed the partner's performance as more domineering. Fifty-six percent of the subjects felt that their partner did worse than they did at the exercise.

### **9.2.3 Assertive Self-description:**

Of the subjects, 78% experienced their partners as being more domineering or assertive and 22% experienced their partner as being passive. In comparison to their own perceived level of assertiveness, 78% viewed the partner as being more domineering and 22% as being at the same level as themselves. None of the subjects perceived the partner as being more passive than they are. Thirty-three percent of the subjects perceived the partner's performance as worse than their own, 55% as in between and only 11% as better than their own performance.

### **9.2.4 Non-assertive Photo**

Fifty-six percent of the subjects experienced their partners as being passive and 44% as domineering. Of the subjects, 67% rated their partners as being the same as them regarding assertiveness, while the remaining 33% perceived them to be more passive. Forty-four percent of the subjects felt that their partner performed worse than they did and 56% described the partner's performance as in between.

### **9.2.5 Assertive Photo**

Of the subjects exposed to the assertive photograph, 60% experienced the partner to be domineering, while 40% experienced the partner as passive. Fifty percent of the subjects perceived the partner as being more domineering than themselves, 40% as more passive and 10% as performing at the same level of assertiveness. Thirty percent of the subjects described the partner's performance as better than their own, 30% as worse than their own and 40% as in between.

### **9.2.6 Non-assertive Audio**

All of the subjects exposed to non-assertive audio material experienced the partner as being passive. Fifty-six percent of the subjects perceived their partner as being more passive than them and 44% as performing at the same level of assertiveness as them. Sixty-seven percent perceived their partners as doing worse at the exercise than they did. Of the subjects, 67% described the partner's performance as worse than their own and 33% as in between.

### **9.2.7 Assertive Audio**

Eighty-nine percent of the subjects exposed to the assertive audio material, experienced their partner as being domineering and 11% as their partner being passive. Forty-four and a half percent of the subjects perceived their partner as being more dominant, 11% as more passive and 44.5% of the subjects perceived their partner as being at the same level of assertiveness as themselves. Eleven percent of the subjects described the partner's performance in the test situation as better than their own, 44% as worse and 44% as in between.

### **9.2.8 Non-assertive Video**

Of the subjects exposed to the non-assertive video material, 60% viewed the partner as being passive and 20% as domineering. In comparison to their own perceived level of assertiveness, 20% perceived their partner as performing more passively, 10% as more domineering and 60% at the same level as themselves. Fifty percent of the subjects described the partner's performance as worse than their own performance and 50% as in between.

### **9.2.9 Assertive Video**

Sixty-seven percent of the subjects experienced their partner as being domineering and 22% experienced their partner as being passive. Twenty-two percent perceived their partner as being

more passive than them, 11% as more domineering and 56% performing as the same level of assertiveness as themselves. Seventy-seven percent of the subjects described the partner's performance as worse than their own and 22% as in between.

## 10. DISCUSSION

It is apparent from the results of the current study that the effect of assertiveness on the decision making process was overshadowed by the effect that the specific stimuli (the fictitious partner's answers) had on the decision making process. The strategy of the subjects was to respond to the pre-determined program value and not to the different representations of assertiveness. According to the regression analyses (Figure 2) that was done, only 33% of the total variance might be explained by the manipulation of assertiveness and even further statistical analyses did not prove that assertiveness played a significant role in the decision making process of the subjects.

It is possible that the most appropriate operationalisation of assertiveness was not utilised in the current study or that the subject population was too small to determine if an individual rated as high on assertiveness, exert influence over other individuals when interacting in a collective decision-making process. These issues deserve further investigation.

The question now arises whether assertiveness was indeed appropriately represented in the experimental setting. According to the checks on manipulation all the different manipulations of assertiveness were identified correctly, in the assertive and non-assertive presentation, with more than 60% of the subjects being able to distinguish between assertiveness and non-assertiveness. The only exception was that only 56% of the subjects exposed to the non-assertive photo were able to identify the partner as being non-assertive.

From the results of the checks on manipulation it would seem that the audio operationalisation of assertiveness was the most effective. One hundred percent of the subjects exposed to the non-assertive photo were able to correctly identify their partner as being non-assertive and 89% of the subjects exposed to the assertive audio operationalisation identified their partner correctly as being assertive.

This begs the question - whether assertiveness influences people in their decision-making capacity and if it has an effect on how assertive people are evaluated in comparison to non-assertive individuals.

According to the theoretical discussion of Expectation States Theory and status characteristics it was expected that the subjects in the study would modify their initial responses to align more with the answers of the assertive partner. According to the results summarised in Table 7.3 ("How do you think your partner performed in the experiment?"), it would seem that in all situations the majority of the subjects perceived their partner to be performing at a lower level of competence than themselves. This was true, whether the partner was depicted to be assertive or non-assertive, even in the case of the most effective operationalisation of assertiveness, the audio assertive operationalisation. This is substantiated by Dorning's results (1995) on the same check on manipulation.

These results bring the argument of Lee and Ofshe (1981) into the equation. They argued that demeanour, and not status characteristics, is the determinant of difference in dominance and influence. From the results of the present study it can be postulated that assertiveness, the status characteristic, is not as important as the task at hand, seeing that it was effectively operationalised, but still did not have a significant effect in the experimental setting. When one status characteristic, assertiveness, was manipulated it could not be detached from the fictitious partner's demeanour. The fictitious partner's demeanour could therefore be the determining factor that caused most of the subjects to rate his performance as lower than their own.

The current study was initiated by Dorning's study (1995) where, even though the checks on manipulation gave an indication that the operationalisation of assertiveness in the form of self-statements was appropriate, assertiveness did not significantly influence the subjects to alter their initial responses. Dorning (1995) recommended that other operationalisations of assertiveness should be examined in similar experimental settings in order to establish whether it was the specific presentation of assertiveness (in the form of self-statements), which was ineffective, or whether assertiveness was irrelevant to the interaction. In a four-year follow-up study of Dorning's (1995) original study by Van der Westhuizen (1999) the same results came to light. Van der Westhuizen argued that it might be possible that the subjects did not consider assertiveness to be relevant to the performance task at hand. It can therefore be postulated that assertiveness is indeed not relevant to influence acceptance in small group interactions.

In the respective studies of Doming (1995) and Van der Westhuizen (1999) the combining and balancing effects of status characteristics received only limited support. In both studies the two variables of race and assertiveness were manipulated, it is thus possible that assertiveness combined with other status characteristics could reveal more about the role assertiveness plays in daily interaction. This could be the focus of a future study.

The current study can be criticised on three counts. Firstly, the small number of subjects used in the experiment limited the techniques that could be used in the statistical analysis of the data. Other statistical techniques could provide useful insights into the appropriate operationalisations of assertiveness within the standard experimental setting. Secondly, it might be useful to include only the data of those subjects who were able to correctly identify their partners as either assertive or non-assertive into the statistical analysis. This will also mean that a larger number of subjects will be required. Lastly, it might also be appropriate to undertake a new study with a different experimental task at hand that promises a more direct path of relevance to assertiveness as a status characteristic.

## 11. CONCLUSION

The present study set out to find a more appropriate operationalisation of assertiveness that can be used in the standard experimental setting of Expectation States Theory research. The study was based on previous work by Dornig (1995) on "The effects of race and assertiveness on active and passive influencing". Dornig operationalised assertiveness in the form of as self-statements and concluded that either assertiveness did not contribute as a status characteristic to the process of influencing in small group interactions or the operationalisation of assertiveness were inappropriate. In order to find answers to this question, the present study incorporated three alternative operationalisations of assertiveness into a similar experiment. The three new operationalisations of assertiveness consisted of the use of photos where an actor posed in an assertive or non-assertive posture, the use of audio sentences or a video clip of an actor combining the original self-statements with other verbal and non-verbal cues of assertiveness.

The study made use of white male students between the ages of 18 and 28 years who participated on a voluntary basis. The subjects were requested to do a test on "contrast sensitivity", which is the same fictitious ability that was used in the study by Dornig (1995). The subjects were informed that they were working with a partner and points would be awarded based on their combined effort. The subjects had to estimate the amount of blocks on the computer screen and had the opportunity to change their answer after exposure to their partner's answer. The subjects were exposed to different operationalisations of assertiveness or no information at all.

The statistical results of the experiment indicated that assertiveness did not play a significant role in the decision-making process of the subjects. There was evidence that assertiveness was indeed operationalised appropriately, because the subjects could identify the assertiveness condition of the partners correctly. The level of assertiveness did not influence the evaluation of the fictitious partner's performance. The value of the partners' responses played a more significant role in determining the adjustment of the subjects' initial responses. It seems very plausible to support the original conclusion by Dornig (1995) that assertiveness did not contribute as a status characteristic to influence acceptance in

the standard experimental setting. People did not regard assertiveness as an important characteristic in determining the expertise of another person in an ambiguous task. Irrespective of the level of assertiveness another person, their judgement and subsequent actions played a much larger role in determining their level of influence in the task at hand.

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