

TOWARDS VALIDATING A FRAMEWORK OF ADAPTIVE SCHEMATA FOR ENTREPRENEURIAL SUCCESS

BAE AMANJEE

F CROUS

A CRAFFORD

fc@rau.ac.za

*Programme in Industrial Psychology
Department of Human Resource Management
University of Johannesburg*

ABSTRACT

The role of entrepreneurship within the context of an emerging economy has been well documented. Specifically within the South African context, the concept of entrepreneurship has been embraced by most industry sectors particularly for its resultant job creation and associated economic benefits. To date, psychologists have attempted to understand and define the factors that predispose individuals to embark on entrepreneurial careers, focusing primarily on the personality characteristics of entrepreneurs. However, entrepreneurial research from a cognitive psychological framework has been limited. Specifically, the impact of schemata on the success of the entrepreneur has received little exposure. A study was conducted to examine the presence and type of schemata inherent in successful entrepreneurs. The findings indicate that successful entrepreneurs display varied manifestations of adaptive schemata.

Key words

Maladaptive schemata, entrepreneurial success, positive psychology

Formal employment in the South African economy has been declining significantly for the past two decades, in spite of a slight improvement of late. This may be the result of either a lack of opportunities, knowledge, skills or appropriate mindsets (Fourie & Landman, 2002).

What kind of mindset could possibly swing this tide of economic decline and unemployment? According to Rupert (1981), who was arguably the most successful South African businessman of the twentieth century (Dommissie, 2005), the entrepreneurial mindset serves as a catalyst for new venture creation. Because of their activities, entrepreneurs are major creators of employment (Kets de Vries, 1990). Entrepreneurship thus presents an avenue to address the need for job creation. It is this contribution towards job creation that warrants further analysis of what constitutes an entrepreneur.

Since its introduction, there has been confusion regarding the definition of entrepreneurship (Drucker, 1985), probably due to the myriad of implicit, explicit and self-perspectives of the term (Crous, 1999). Nevertheless, most definitions are congruent with the definition presented by Kets De Vries (1990, p. 857), that the entrepreneur is "an individual who is instrumental in the conception and the implementation of an enterprise". However, one has to be sensitive to Drucker's (1985) warning that not every new venture is entrepreneurial in nature or represents entrepreneurship per se.

Since the 1980's, the study of entrepreneurship has attracted many researchers - comparatively few of them psychologists (Warneryd, 1999). Even though there is no specific psychological theory of entrepreneurship (Warneryd, 1999), Crous (1999) indicated that most psychologists who studied entrepreneurship followed a so-called formistic approach to their subject matter; that is, they tried to identify a unique pattern of psychological traits that may predispose (form) an individual towards entrepreneurship. In this regard, a number of psychological traits descriptive of the successful entrepreneur have been identified (Van Daalen, 1989). Most psychologists agree that the successful entrepreneur displays at least the following psychological traits (Chell, Hayworth & Brearley, 1991; Crous, Nortje, & Van der Merwe 1995; Peterson, 1995):

- They are moderate risk takers;
- They have a high need for achievement;
- They have an internal locus of control;

- They have high aspiration and motivation levels;
- They display a high level of commitment to the task at hand;
- They display high levels of creativity; and
- They have an innate leadership capability.

There is, however, no consistent empirical support for an ideal entrepreneurial personality profile (Gartner, 1989; Van den Ven, 1980; Wickham, 1998). Management theorists (such as Drucker, 1985) are vehemently opposed to the idea that the entrepreneur should be defined primarily in terms of a range of ideal personality traits.

For psychologists interested in the study of entrepreneurship (and specifically the mindset of the entrepreneur), an alternative approach is presented by cognitive psychology, which focuses on the thought patterns and mental processes of individuals. Therefore, in line with current trends within the domain of psychology, the aim of this study is to expand the understanding of the psychology of the entrepreneur by adopting a cognitive psychological approach, with particular emphasis on the nature of schemata common to successful entrepreneurs.

Piaget was one of the first theorists to describe a schema. Although linked primarily to the development of the child, Piaget postulated that a schema (plural: schemata) is developed when the child engages in action and that, through imitation (that is, the child observes a particular behaviour imitated by others and consequently repeats the behaviour), a schema is formed. Once the schema has been formed, the sight or sound of the trigger will initiate the performance of the associated action (Piaget, 1968).

Within the context of social cognition, a schema refers to an individual's general knowledge and concept about any person, object and event. Derived from the Greek word for 'form', it refers to a general mental structure that individuals have about people or things. Derfer (1995) described schemata as "conceptual structures and processes" through which the individual stores information about the environment. Worchel, Cooper and Goethels (1988) suggested that a schema provides us with expectations or preconceptions about how people will behave or how events will unfold. Consequently, we will easily notice information that is consistent with our schema (an exact match); interpret information that is ambiguous in relation to our schema (to find a relationship or match); and finally, recall

information related to our schema better than we would unrelated information. Individuals thus utilise schemata to guide their responses to new experiences.

Building on to Piaget's proposition, Wadsworth (1979), and Rosenthal and Zimmerman (1978) argued that people develop schemata either through life experiences or by hearing other people talk about schema-related information. Schemata develop and change depending on the individual's experiences and their similarity to existing schemata.

The following excerpt from a story will illustrate how schemata are utilized:

The little girl sat looking at her piggy bank. "Old friend," she thought, "this hurts me." A tear rolled down her cheek. She hesitated, then picked up her tap shoe by the toe and raised her arm. Crash! Pieces of Piggo – that was its name – rained in all directions. She closed her eyes for a moment to block out the sight. Then she began to do what she had to do (www.educ.indiana.edu/p540/webcourse/schema.html).

If an individual possessed a piggy bank during their childhood, then chances are that they would know the following due to the "piggy bank schema" that they have – that is, piggy banks are normally made of a fragile and brittle material, piggy banks are used to collect money (especially coins), and piggy banks can only be opened in one way – by breaking them. If, on the other hand, one never possessed a piggy bank, then the excerpt above would really make no sense at all because there is no schema for a piggy bank. The schema allows us to assess the situation at hand and compare it to similar existing mental notes upon which we base our reactions.

Fiske and Morling (1995) proposed that five types of schemata are developed within an individual:

- Person schemata in which the schema contains knowledge about different types of people, such as the specific attributes of people;
- Self-schemata, wherein the individual structures information about the self in certain situations;
- Role schemata, which revolves around the behaviours we expect of people in social positions;
- Event schemata, which are developed through the individual's interaction with the environment resulting in the individual storing the event and its associated sequence of activities to form the schema; and
- Content-Free schemata in which the individual stores and arranges information via existing storage and retrieval mechanisms.

The relationship between the different schemata that one has and its resulting influence on how the individual behaves and responds can be mapped. Repeated experiences result in the creation of schemata that then exert a direct and powerful influence on how an individual acts and responds to the same, similar or new stimuli. Schemata that are maladaptive (destructive or 'negative') will adversely influence the individual and schemata that are adaptive (constructive or 'positive') will positively influence the manner in which new information is interpreted. Schemata thus act as 'lenses' through which the individual experiences reality. This is illustrated in Figure 1.

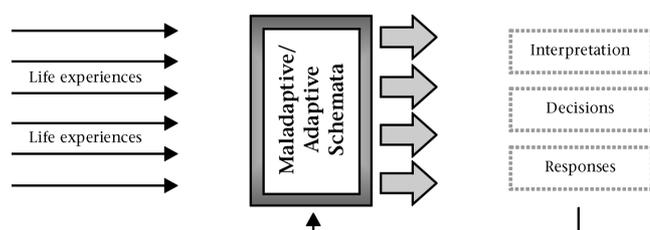


Figure 1: Schemata as a lens

TABLE 1
MALADAPTIVE SCHEMATA AS DEFINED BY BENNETT-GOLEMAN (2001)

Schema	Description
Abandonment	Results from a reaction to loss. The individual has an ongoing fear that he/she will be left alone. The schema can have its roots in actual childhood experiences of being left i.e. parental divorce or desertion. The perceived abandonment can be symbolic as well i.e. having unstable, unreliable or unpredictable parents. For these individuals, the prospect of being alone invokes sadness and feelings of isolation. Individuals with this schema need to learn that they will be all right on their own and that trust in others will help overcome the fear.
Deprivation	This schema is formed when the child has parents who are so self absorbed that they simply do not notice or seem to care about the child's emotional needs. The individual feels ignored and has the continuous belief that his/her needs will not be met. Such individuals are often very demanding which in turn, turns others off. They seek emotional nurturance and forcefully try to obtain it.
Subjugation	This schema revolves around the belief that within intimate relationships, ones own needs never take priority. The other person always rules. The schema typically originates in childhood whereby the child has no say, thus completely ignoring the child's need for autonomy. Children who grow up in such environments learn that their feelings and needs are invisible or that they do not count. They learn to be powerless and helpless about their own needs and wishes.
Mistrust	The mistrust schema has as its core belief that people cannot be trusted. Individuals having this schema are constantly vigilant in relationships, fearing that others want to take advantage of them or will betray them. Because they are suspicious, they often assume the worst about individuals. This schema stems from some type of abuse (physical, emotional or sexual) or maltreatment early in life. When viewing life through the mistrust lens, relationships become dangerous territory because the other person always ulterior motives or is trying to manipulate you.
Unlovability	The core assumption that typifies this schema is a belief of being somehow flawed, and consequently, any person that befriends you and comes to know your true self will find you defective. The sense of being flawed and not worth loving is often instilled by hypercritical, insulting or demeaning parents. The individual is made to feel unworthy of love.
Exclusion	This schema revolves around how the individual perceives his/her status within groups. Its underlying theme is "I do not belong". The individual does not feel part of the group and typically remains on the edge of the group, thereby reinforcing the sense of exclusion. This schema takes shape later in the child's life where interaction and acceptance by other children become increasingly important.
Vulnerability	This schema is characterised by a fear of losing control and consequently, an exaggerated fear that some catastrophe is imminent. Ordinary fears become fully-fledged disasters. The child learns to worry too much, resulting in anxieties. The roots of this schema can be traced back to parents who had tendencies to catastrophise or who constantly felt that something bad was about to happen. The child comes to believe that the world is a dangerous place.
Failure	Despite remarkable achievement, certain individuals still feel as though they are not good enough. A feeling of being deficient and incompetent despite accomplishment typifies this schema. Overly critical parents who make a child feel inept either directly or by comparison to more successful siblings, or constant put-down by siblings or schoolmates lead the individual to believe that he/she is just not good enough to succeed.
Perfectionism	The sense of inadequacy that is generated within an individual when criticism is levied at child's performance even though exceptional results are achieved. This creates a deep sense of inadequacy within the child and the child comes to believe that must do ever better to win his/her parents love and approval. "I have to be perfect" is the motto of this schema. However, no matter how well the individual actually performs it is never enough so he/she drives even harder.
Entitlement	Individuals displaying the entitlement schema feel special – so special that the limits applicable in the world do not apply to them and that they can do what they want. Their distorted view of life arises through being spoilt in childhood, treated like little princes and princesses with servants at his/her beck and call, being set no limits and not allocated responsibility. In other situations, being deprived during childhood results in the individual feeling aggrieved and subsequently entitled to compensation.

Schemata are continuously refined as the individual progresses through life. Schemata become more complex over time as the individual has more experiences from which to gather information. Consequently, the information contained in a schema will become more accurate, usable and refined over time (Rosenthal & Zimmerman, 1978; Wadsworth, 1979).

Bennett-Goleman (2001) defined a maladaptive schema as a powerful set of negative thoughts and feelings which take root in the mind (as a result of the schema being utilised previously). Certain schemas are created or modified because they are partial solutions to problems that have been experienced. Furthermore, a schema may have helped an individual to cope at a particular time in life but does not imply that the schema will always be useful. Occasionally, the schema may 'become' destructive, as its application will have no bearing on the situation at hand – specifically because the schema was created to serve a specific need at a specific point in time. The ten maladaptive schemata, which adversely impact on the psychological well-being of individuals, are Abandonment, Deprivation, Subjugation, Mistrust, Unlovability, Exclusion, Vulnerability, Failure, Perfectionism and Entitlement. Descriptions of these maladaptive schemata are presented in Table 1.

Bennett-Goleman's model of maladaptive schemata may present a framework for entrepreneurial failure. However, in alignment with current trends towards positive psychology (Seligman & Csikszentmihalyi, 2000; Snyder & Lopez, 2002) it will be of greater value to focus on the adaptive or 'positive' schemata that may contribute to the success of the entrepreneur.

Bennett-Goleman's (2001) maladaptive schemata model was thus reconstructed to reflect adaptive thinking and behaviour instead of maladaptive thinking and behaviour. Each of the maladaptive schemata was renamed and adaptive characteristics were formulated to describe how the specific schema would be reflected within the realm of entrepreneurship. These were defined as: Security, Fulfilment, Freedom, Trust, Acceptance, Inclusion, In Control, Resilience, Learning and Innovation. Descriptions of these adaptive schemata are presented in Table 2.

TABLE 2
ADAPTIVE ENTREPRENEURIAL SCHEMATA AS ADPTED FROM
BENNETT-GOLEMAN (2001)

Schema	Description
Security (Abandonment)	The entrepreneur believes that by going on his/her own, he/she becomes the master of his/her own destiny. The entrepreneur believes that an entrepreneurial career will provide significantly more security for himself/herself, than a traditional career due the level of control he/she can exercise. The entrepreneur prefers this security as opposed to the growing insecurity within an employment relationship.
Fulfilment (Deprivation)	The entrepreneur is driven by the belief that an entrepreneurial career will result in his/her general needs being met.
Freedom (Subjugation)	The entrepreneur believes that an entrepreneurial career is liberating as it offers freedom from the constraints and regulations of formal employment. The entrepreneurial career also provides him/her with the autonomy to do that which they desire. He/she may choose to fulfil his/her needs or they can choose to put others' needs before theirs. Ultimately, he/she has the freedom of choice.
Trust (Mistrust)	To be successful, the entrepreneur builds trusting relationships with key individuals in and around the venture. However, trust does not imply (simple) naivety. The level of trust is determined by the degree of risk in the situation or relationship. Such relational trust forms the basis of the interdependent relationships necessary for the entrepreneurial career.

Acceptance (Unlovability)	Acceptance as a person: That whatever he/she does, whatever offering is taken to the market and whatever the outcome, he/she will be accepted by society. The feeling that he/she is 'self-made' will further bolster the acceptance.
Inclusion (Exclusion)	The entrepreneur believes that through his/her chosen career path, he/she will become an integral part of a community. He/she will also drive his/her inclusion into industry, societal and other bodies thus gaining access to resources and associated industry benefits.
In Control (Vulnerability)	The entrepreneur prefers to be in control of a situation. Control is seen as an avenue through which areas of vulnerability are removed.
Resilience (Failure)	The entrepreneur believes that he/she is competent and able to be successful but always remains mindful that success is not achieved overnight and that he/she will encounter obstacles in the process. The belief in his/her own competence drives the entrepreneur to remain positive, work harder and be more resilient in overcoming obstacles and setbacks. The successful entrepreneur never takes no for an answer.
Learning (Perfectionism)	The entrepreneur views all experiences, positive or negative, as learning experiences. Failure or imperfection is acceptable to the entrepreneur due to the educational value it presents, providing an opportunity from which to learn and re-evaluate practices and decisions. Failure is seen not as an end but rather a temporary setback.
Innovation (Entitlement)	The entrepreneur is willing to create his/her own future and success with or without assistance. He/she does not feel that the world owes them. Because of the desire and ability to innovate and create, the entrepreneur feels that he/she is allowed to redefine or reframe the 'rules of the game'.

The goal of the research was thus to determine whether the reconstructed adaptive entrepreneurial schemata [based on Bennett-Goleman's (2001) framework] can be viewed as a valid model for the study of entrepreneurship.

RESEARCH DESIGN

Research approach and methodology

A quasi-ethnographic approach utilising semi-structured interviews was adopted towards identifying and interpreting the types of adaptive schemata within successful entrepreneurs. This approach was preferred because of the novel and exploratory nature of the study. A qualitative methodology allows one to uncover and understand what lies beneath a phenomenon about which little is known (Strauss & Corbin, 1990). It provides an opportunity to explore the mind of the entrepreneur and to gain insight into how the entrepreneur experiences the world. Importantly, it allows the entrepreneur's "voice" to be heard. Furthermore, this approach enhances the richness and depth of the data (Rubin & Rubin, 1993) specifically surrounding the uniqueness in schemata, how they manifest, and how these are expressed between different entrepreneurs.

Research Participants

From an initial group of ten, the final sample included seven South African Indian males who complied with the criteria as defined by the Entrepreneurial Success Model proposed by Crous (1999):

- They defined and created their own careers;
- They created new organisational contexts;
- They created new consumer contexts; and
- They are currently financially successful (or realistically en route).

An established and successful financial accounting practice was subsequently approached to gain access to clientele fitting the desired entrepreneurial characteristics. This can be described as a purposive sampling strategy (Esterburg,

2002). A meeting with the practice owner was arranged to communicate the purpose of the study and ten potential participants were identified.

Due to the nature of the relationship between the practice owner and his clients, the practice owner agreed to call each person identified to gauge their willingness to participate in the study whilst simultaneously introducing the researcher. Hence, by the time the researcher contacted participants, they were expecting the call, they knew who the researcher was, and a degree of trust and credibility had already been established. One individual expressed discomfort in participating and another continuously cancelled or postponed meetings. Another participant agreed to be interviewed but objected to the interview being recorded. It was thus impossible to obtain reliable data for this participant. These three individuals were consequently excluded from the study. Their reasons for choosing not to participate were respected. One has to remain cognisant of the potential 'loss' of information due to these individuals' non-participation (Esterburg, 2002). This resulted in seven participants being included in the study.

Data Collection

Information was gathered via semi-structured interviews of approximately one and a half hours each, scheduled with each participant at their leisure. Time permitting, participants were briefed regarding the interview and guided on any preparation they could conduct. The rapport-building process was simplified and shortened by the 'gate keeper' (the accounting practice manager) having already introduced the researcher. At the appropriate time, permission to record the interview was obtained from each participant. Participants were advised that the records would be kept completely confidential and all analysed data would be reported anonymously.

Potential opening questions were constructed and tested outside the scope of the investigation to determine whether the question would in fact yield relevant information. Questions were initially open-ended to allow "the object to speak" (Smarling, 1992), to share their life journeys and experiences. The goal was not to bias the data. Questions were kept to a minimum and used to ensure a greater understanding of particular phenomena. The opening question focused on what the key factors are that had contributed to the success of the individuals as entrepreneurs. Clarification was used to resolve uncertainties.

There were however exceptions to this process. In instances where a participant moved significantly beyond topics directly related to the study or when the responses were markedly different, specific and direct questions were asked to get the interview 'back on track'. This was the case with two interviews.

Data Interpretation

Data in the form of transcribed interviews was analysed and interpreted to determine the degree of fit to a particular predefined schema. Other categories of data also emerged, and these were documented and analysed. Categories and descriptions were created and these are reported on. The categories were also compared to notes taken during the interviews as well as other non-verbal observations documented by the researcher. The interpretation of data became an iterative process whereby the categories of data found and the research question under investigation were continuously re-evaluated and re-formulated to ensure that the data sets, definitions and descriptions were valid. These findings were captured in a report.

THE FINDINGS

Support for the presence of the adaptive schemata was found in varying degrees across the research sample. Six of the ten adaptive schemata being investigated were common to all the participants, albeit with participants exhibiting unique manifestations of the schemata. Sub-categories of schemata emerged upon the analysis of the data and contributed towards refining the specific schema.

The presence of a schema was based on finding reasonable support for the schema. Within certain participants, the sheer volume of supporting evidence for specific schemata (or sub-categories thereof) was overwhelming, having permeated almost every aspect of the participant's life. This prompted these schemata to be classified as the dominant schema or the dominant sub-category within a schema. These dominant schemata (or sub-categories) are the schemata that exert a significant influence over the thoughts and actions of the individual.

A summary of the findings is presented in Table 3.

As indicated, four additional categories of data were also identified and these are discussed later in the report.

TABLE 3
SUMMARY OF FINDINGS

Schema	Sub-category	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Participant 7
Security	Self/Significant others	X			X	X	x	
	Non-significant others	x			x			
Fulfilment	Material	X	X					
	Personal						x	X
	Financial		X		X	X		
	Religious	X						
Freedom	Humanity	X	x	X	X		X	X
	Freedom to	X	X	X	x	X	X	X
Trust	Freedom from	X	X	x	X	X	X	X
	In others	X	X	X	X	X	x	X
Acceptance	By others	x		X	X	X	X	X
		X	X	X		X	X	X
Inclusion		X	X		X	X	x	
In control						X	x	
Resilience		X	X	x	X	X	X	X
Learning		X	X	X	X	X	X	X
Innovation		X	X	X	X	X	X	X

An 'X' in uppercase denotes that substantial supporting evidence for a schema or sub-category was found. An 'x' in lowercase denotes that little or insignificant supporting evidence was found.

Adaptive Schema 1: Security

Within the domain of the entrepreneur, the security schemata focused on entrepreneurs becoming 'masters of their own destiny'. This implied that the entrepreneur could exercise some control over life in general, business events and related experiences. Furthermore, the security schema focused on the entrepreneur's need for – and creation of – security.

Upon analysing the data, it emerged that there were two reasons for security. The first reason related to the participants' perceptions of decreased job security because of economic decline, retrenchment, organizational restructuring and age; events over which they had very little control. Participants feared being retrenched at a stage in their lives and subsequently, unable to find employment. The negative impact on their long-term financial security would thereby be compromised. This reason was named "Security for the Self". The following statement by a participant illustrates this:

"Ultimately, there was always the risk that as you got old or became a burden to them, a liability to them, they would retrench you or ask you to leave".

The second reason that emerged was the need to create security for family members (children or siblings). One participant voiced a concern over the ill health of family members and the negative impact should these individuals be unable to earn an income. Another participant (together with partners in the business who were his siblings) had already calculated the Rand amount of income per month that their children would have to earn to live comfortably when they became adults – and were strategising on how they would achieve this. This was referred to as "Security for Significant Others".

This concept of 'creating something for the kids' is pervasive within the South African Muslim community, and is particularly evident in families where the primary income is via a family-owned business. Parents encourage their children to join the family business where they can ensure the child earns enough money to live a comfortable life. They feel that it is their responsibility to look after their children, even as adults.

Adaptive Schema 2: Fulfilment

This schema encapsulates the belief that an entrepreneurial career will result in the individual's general needs being met. Based on participant responses, a variety of needs were immediately evident. These needs varied between material fulfilment (cars, homes, luxury items) and religious fulfilment (the achievement of religious or spiritual goals). The following sub-categories of fulfilment were identified: "Humanity", "Personal", "Financial", "Material" and "Religious". In general, no single sub-category of the fulfilment schema was demonstrated by all the participants.

A substantial amount of information alluded to the participants having empathy for the disadvantaged and underprivileged in society. This sub-category was labelled "Humanity". Two participants defined success in terms of their contribution towards uplifting poverty and inequity within society:

"It is not about that. It is about the humanity. Tomorrow, you and I will die. You have made R 500 million, which you bequeath to your kids. Are you a success? Nonsense! You are not a success. There are 10 million people out there that are starving in this country. What success have you achieved? You have had not achieved anything".

This was termed humanity because unlike social responsibility, it was not grounded in generating acknowledgement and these participants displayed no explicit ulterior motive for their actions. It was classified as the dominant sub-category within the fulfilment schema, as it appeared to exert a significant influence on how the entrepreneur interpreted and responded to information.

The second sub-category that emerged during the analysis of information related to the achievement of specific personal goals and targets that an individual may have set, and was labelled "Personal Fulfilment". A variety of goals that drive personal fulfilment were identified, such as life ambition, career goals, educational goals, a particular quality of life and personal growth targets.

Money and wealth also emerged as a sub-category of the fulfilment schema. This was termed "Financial Fulfilment" and was evident in three of the participants, for whom it was a driving factor. In other participants, "Financial Fulfilment" seemed incidental to their current work situations. These entrepreneurs were driven primarily by the goal or the challenge and financial reward was viewed as a by-product.

Another sub-category to emerge from the data focused on the acquisition of material goods, luxuries and other items. Material items (in this context) referred to goods such as cars, homes, clothing and other commodities or luxuries (as required and acquired by the entrepreneur). This sub-category, called "Material Fulfilment", was only referred to by two participants.

The final sub-category that emerged from the data in support of this category was called "Religious Fulfilment", in which the entrepreneur was able to utilise the benefits of being an entrepreneur to fulfil specific religious and other spiritual requirements expected of him. This sub-category was evident in only one participant.

Adaptive Schema 3: Freedom

In the analysis of the data, one theme that became immediately apparent was the entrepreneur's need for freedom. Two sub-categories emerged with regard to freedom. The first sub-category entailed the entrepreneur seeking freedom from the constraints and regulations of formal employment and was called "Freedom From". The second sub-category was called "Freedom To" and centred on the entrepreneur's freedom to exercise choice.

"Freedom From" manifested differently amongst the participants. Certain participants expressed unhappiness at having to report their every action to somebody or having to explain why they were five minutes late for work or leaving work five minutes early. This was expressed as follows: *"Another thing is working for somebody, at most times you're bound as far as time is concerned. You have to look for consent, you have to look for permission".*

Other aspects participants wished to be free from were 'glass ceilings', victimisation and inequity in the workplace. Of the three participants who did not indicate a desire to be "free from" two had been raised and educated abroad, suggesting that this may be restricted to participants raised and educated in South Africa.

As indicated, the second sub-category of "Freedom To" centred on the entrepreneur's freedom to exercise choice and allowed him to direct his activity to achieve his goals. This sub-category allowed the entrepreneur to be a perfectionist if he deemed necessary, to transact with whomever he chose, to take calculated risks when necessary, to look at problems and obstacles from other perspectives, to utilise working hours to achieve religious and other personal goals and, finally, to be able to provide a service free of charge because the situation warranted it.

The sub-category of "Freedom To" was present in all of the participants.

Adaptive Schema 4: Trust

Two sub-categories emerged for the "Trust" schema. The first sub-category focused on the entrepreneur relying on other people (for example, suppliers, partners, employees and

regulatory bodies) to achieve the goals that had been set. Within the venture, the segregation of responsibilities became inevitable and to delegate responsibility, the entrepreneur had to trust other individuals. This sub-category was called "Trust in Others".

Substantial evidence for this sub-category was obtained. In most instances "Trust in Others" was synonymous with trust in a family member as all but one of the participants were in a partnership with or employed family members: *"My wife has come on board. It also allows me the opportunity whereby I can comprehensively trust"* and *"Family-wise, I think that the trust is ultimate. There are no questions in that regard"*.

"Trust in Others" extended to include trust in employees (usually managers or supervisors) as illustrated in this statement: *"I do not have to tell him what he needs to do. He knows what is expected of him and what the factory has to do. I trust him that he will do it"*.

One participant mentioned trust in relation to suppliers. He had received samples of a product from an international supplier and, based on a commitment from his supplier, had set-up an import business. The participant had already marketed the product within South Africa and had confirmed orders worth millions of Rands – based solely on the word of his supplier. This level of trust in a supplier was not mentioned by any of the other participants.

The second sub-category that emerged in this schema revolved around others' perception of the entrepreneur, and specifically the extent to which the entrepreneur is perceived as trustworthy. This theme was called "Trust by Others". It was clear from the data that being perceived as trustworthy by others (such as suppliers and customers) was important to most of the participants. "Trust by Others" was earned and how trust was earned varied between the participants. An enduring trend in this regard was to be open and honest, to tell the truth and to respect people, as indicated in the following statement *"Whether you had a lot of money or little money, as long as you are honest, trustworthy, and respectful, then you would always have the respect of people"*.

This sub-category was applicable to all but one participant.

Adaptive Schema 5: Acceptance

"Acceptance" refers to the acceptance, by the market, of the entrepreneur and/or the products and services he offers. In some instances, acceptance of the entrepreneur implied acceptance of product, as it was the participants themselves who were the actual offering, contracted for specific competence for example, an accountant or graphic designer who sold creativity. Hence, if the person was accepted it would imply the product was accepted.

However, this 'person = product' relationship did not always apply. In environments where a specific product or commodity was a competitive advantage, the success lay in having to prove the robustness of the product. One participant is a supplier of a consumable product to South African mines, a product for which there are only two industry-approved manufacturers nationally. In the engagement process (notwithstanding the credentials of the participant) the product was subjected to stringent testing before being considered for purchase. The manufacturing plant was also subjected to scrutiny. The mines would make a decision based on the quality and durability of the product, and not only on the integrity of the individual. A similar approval processes was applied to another participant's product which was part of the food industry. In this instance, their ability to meet health requirements guaranteed them the deal.

Adaptive Schema 6: Inclusion

Inclusion referred to the participant feeling that he was becoming (or had already become) an integral part of a specific community, and evidence for this schema was found in five of the seven participants.

The manifestation of this schema differed between participants largely due to the definition of 'community'. In one instance, a participant expressed great joy in creating a "community meeting place" where: *"It's become like a family thing, all these carpenters and tradesman come there and they make jokes and they feel like it a place to get together type of thing"*.

Affiliation and membership to industry bodies also generated a sense of inclusion in one participant, where the industry body became an avenue through which industry-specific problems could be addressed. In this manner, the entrepreneur was able to enjoy access to resources and other associated industry benefits.

Adaptive Schema 7: In Control

Many participants cited insecurity in the work relationship as a key factor prompting their move towards entrepreneurial careers. Participants indicated that they could exercise little or no control over the events that resulted in the insecurity. The entrepreneurial venture, on the other hand, offered the participant greater security due to the increased level of control he could exercise. This need for increased influence over events in (and the removal of insecurities from) their lives was called "In Control".

Whilst this schema is closely linked to the "Security" schema, little supporting evidence emerged. In three of the four participants where it was relevant, being in control seemed to be a welcomed by-product of being self-employed.

Adaptive Schema 8: Resilience

The entrepreneur is often described as an individual who never gives up and never throws in the towel. Within this investigation, numerous pieces of supporting evidence were found that described the obstacles experienced by participants, and how these were overcome through their immense self-belief. Participants highlighted the importance of the entrepreneur's capacity to 'bounce back' as differentiating success from failure. This is captured in the following statement:

"The difference with the entrepreneur is that we hit the wrong road, and then go back to see which road we have missed. We don't just go back and give up. He will say, I have made this mistake and I will not make it again but I will try again".

It was the ability to sensitise oneself to setbacks and failure that enhanced the entrepreneur's level of resilience, thus improving the chances of bouncing back. Resilience was expressed as being able to see beyond the problems, to live through them and then to learn from the experience.

One participant indicated that the entrepreneurial career was about the long haul and that one's perspective of this journey would influence the outcome:

"... and you will have problems along the way, but if you are prepared to work with people and if you are prepared to overcome these problems, then in the long-term you will achieve what you want".

Supporting evidence for this schema was found in all of the participants.

Adaptive Schema 9: Learning

A common theme that prevailed across all the participants was their ability to experience a situation, learn from it and 'apply' the knowledge they had gained at a later stage should the need arise. This orientation towards learning formed the basis of the "Learning" schema.

The "Learning" schema was described as the process whereby the entrepreneur viewed all experiences, positive or negative, as an opportunity from which to learn and re-evaluate practices and decisions. Failure and imperfection was acceptable to the entrepreneur because of the educational value it presented.

The "Learning" schema manifested differently amongst the participants and the learning experience seemed to be initiated by one of three triggers - self-appraisal, experience and necessity.

Self-appraisal was a process in which the entrepreneur assessed his behaviour, activities and outputs over a specific period or regarding a specific event. In this manner, personal strengths and weaknesses were identified for corrective action, as were activities that were value adding and desirable so that these could be replicated to enhance success.

Learning through experience represented the most common form of learning within the participant group. This was reflected with great accuracy by one participant who stated: *"It is through these experiences in life that you learned your first lessons"*. Participants utilised most of their life experiences, significant or arbitrary, as an opportunity to learn. One participant, on arriving outside a local grocery store, experienced great difficulty in finding secure and accessible parking. This prompted an assessment of the parking facilities outside his own business and resulted in him re-designing the parking area. Another participant utilised his many years of experience as a business unit manager to design an effective business process for his factory.

Necessity referred to the entrepreneur having to learn something because knowledge about a topic was required for example familiarity with the Labour Relations Act, as illustrated in the following statement: *"We also saw the necessity of becoming familiar with the Labour Relations Act. We called in Labour attorney's and participated in a full seminar, one full Saturday, and we got all the youngsters to attend it, and now, we are all fully conversant with the Act"*.

Ultimately, it is the entrepreneur's ability to apply what has been previously learnt that becomes the definitive characteristic of the successful entrepreneur. This schema was present in all the participants.

Adaptive Schema 10: Innovation

Substantial evidence was found with regard to the schema "Innovation". The latter referred to the entrepreneur's willingness to get the job done, even when assistance from others was not forthcoming, as well as reframing the "rules of the game" where necessary.

It was clear participants did not expect others to assist them, nor did they feel people owed them anything: *"No, I don't believe in entitlement. Give us an even footing, we will take on any other company and fight for the work on an even footing to get that account"*. This statement was made with direct reference to the many affirmative action policies pervasive throughout South Africa. Because many of the participants had begun their entrepreneurial careers during the apartheid years, they required

a considerable level of creativity and ingenuity if they were to be successful, and indicated they often had to find ways to redefine the rules of the game.

One participant demonstrated this by changing the niche market of his business when the services he offered were not accepted. He explained it as follows *"Being in South Africa, and being considered black, had an impact on my business in that I could not attract big business."* This resulted in a complete change in focus *"... I would target the black market, the professional black market, and that I would go and visit them in the townships if necessary"*. Another participant referred to continually applying new rules to everyday problems, as seen in the following statement: *"In any situation that I'm put in, I always want to push the envelope and see how far we can go"*.

Being able to create successful businesses despite a discriminatory environment was seen as evidence for the "Innovation" schema. The schema was evident in all the participants.

Other categories of significant information

Whilst not the focus of the investigation, four additional categories of schemata emerged: "Agility", "Business Mindset", "Godliness" and "Positive Orientation". Based on the frequency and intensity of supporting evidence for these categories (each found in at least five of the seven participants), it was concluded that the categories should be of significance in understanding an entrepreneur. A high level analysis of the findings is presented in Table 2.

Agility

This theme focused on the entrepreneur's ability to readily adapt to a situation, thereby maintaining or gaining advantage. This is reflected in the following participant's statement: *"The times have changed from what it was and our business has since changed almost to the extent of changing on a daily basis. Every day there can be a change and we have to be on top of it"*.

The category, "Agility", which was evident in six of the seven participants, manifested in various ways and was generally influenced by either the specific environment in which the entrepreneur operated or the size of the problem that the entrepreneur was facing. One participant, who operates within a highly unionised industry, anticipated pending changes in legislation and proactively restructured his business: *"We have been rather proactive in that before the Equity Bill came into effect, ... we decided that we should get our employees trained and let us give them positions in our company"*.

"Agility" also included the skill of successfully orchestrating the activities of a business (or various businesses) to achieve a desired outcome, as is illustrated in this statement:

"I took the hat business, stopped buying and started selling off. We down turned the hat business and in the process, started V's business in all this instability..."

Business Sense

The key theme in this category was the entrepreneur's ability to

TABLE 4
SUMMARY OF FINDINGS OF ADDITIONAL CATEGORIES OF INFORMATION

Category	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6	Participant 7
Agility		X	X	x	X	X	X
Business Sense	X	X	X	X	X	X	X
Godliness	X	X	X	X	x	X	
Positive Orientation	x	X		X	x	X	

An 'X' in uppercase denotes that substantial supporting evidence for a schema or sub-category was found. An 'x' in lowercase denotes that little or insignificant supporting evidence was found.

apply sound business rationale to the operation. The type of supporting evidence ranged from the basics of first completing the necessary investigations before initiating a new business to everyday financial sense of not utilising the profits from the business to fulfil personal needs.

Two of the participants made specific reference to knowing when to seek the assistance of competent and trusted business specialists: *"Because I rely a lot on D for advice and a lot of other things. Often, I would call D and tell him this is an opportunity, what do you think?"*. For another participant, it had meant paying the four brothers involved in the business equal salaries to eliminate potential conflict arising from salary differentials.

Lastly, "Business Sense" for one participant included an indication that cutting costs are not always in the interests of the business. He had issued the following instruction to his factory managers: *"...you can build on the product. That is fine. But, you do not change it. You can upgrade, but do not change it. Don't try and cut corners"*. This entrepreneur demonstrated a good grasp of both his products and his client base, both of which are critical for a successful business.

This category was evident in six of the seven participants.

Godliness

The primary theme in this category was the perceived role fulfilled by God in the success the participants had achieved, and was evident in all but one of the participants. Two participants were adamant in ascribing all of their success to God and, in the process, completely discounting their effort: *"I must really tell you that no matter how much effort you put in, it is not you that is making something successful. It is Allah and Allah alone that makes you successful"*. These individuals also indicated that their businesses operate strictly on Islamic principles, including the use of Islamic banks, since the receipt, payment or participation in interest is disallowed in Islam.

The individuals who displayed strong tendencies for "Godliness" were raised in Muslim communities, attended Islamic classes and socialised in circles where their underlying religious principles were continuously reinforced.

The only non-Muslim participant in the sample also highlighted his belief that God provides sustenance. He further indicated that prayer is an offer to God in appreciation for providing sustenance: *"... in our office downstairs, there is a mandir (temple), that we thank him" and "You'll see that we write a little Aum sign (|- a sacred syllable representing Brahman, the impersonal Absolute – omnipotent, omnipresent, and the source of all manifest existence) each time we send out an invoice, that we thanking the Almighty (Bhagwan) for all that he is providing us"*.

Finally, "Godliness" within an entrepreneurial context can be summarised by the following statement:

"We have impressed upon them that the business needs to be run strictly upon the religious grounds and that they must believe that religion is not separate from business. The religion is a way of life. There are no departments in our life, it is all in one".

Positive Orientation

A positive and constructive mindset was characteristic of each of the five participants who demonstrated this category. It focused on the discussions an entrepreneur has with himself, that is, "Self Dialogue". While supporting evidence for this category varied, the following extract highlights the clear message throughout: *"If we want to we can do it. I am confident that we could achieve anything that we decide we want to do. That is simply because we have a mindset which says that nothing is not achievable"*.

Other manifestations of this category included:

"The whole thing is that people think that money is important. Its not important, what is important is things like positiveness".

"I love my work. I wake up in the morning and I tell myself that today is a new day and I am going to meet more people, new people".

RELIABILITY AND VALIDITY

The internal reliability of the investigation was enhanced in the following manner (Smaling 1992):

- A triangulation process was utilised whereby the researcher in association with two academic peers analysed the data to check for consistency in interpretation and outcomes.
- An audit trail was prepared which includes the actual recorded interviews, the transcribed interviews and other necessary information.
- Only one interviewer was used to gather data.
- Interviews were kept to a maximum of one interview per day, conducted over a two-week period to minimise interviewer fatigue.
- A uniform process was utilised to analyse the data. Similar themes in the interview data were clustered into broad categories related to the schemata derived from the Bennett-Goleman (2001) framework. Four additional categories which were unrelated to the Bennett-Goleman (2001) framework were identified. The categories were then further rearranged to remove unrelated information and identify specific statements as 'supporting evidence'.

The validity of the investigation was enhanced by ensuring that a comprehensive set of notes and data about the participants, the interview, the interview setting, the researcher's expectations, the researcher's mood etc. was kept. This information was included in the analysis and interpretation of data.

The external reliability of the study was managed through providing thick descriptions of the way the research was conducted, how the sample was obtained and the interviews executed.

CONCLUSION

Supporting evidence indicating that adaptive schemata are embedded in the minds of successful entrepreneurs was found across the research sample. However, supporting evidence for each schema was not found in every participant.

Where supporting evidence for a schema or sub-category of a schema was found in more than five of the participants, it was considered a substantial schema. Consequently, "Fulfilment", "Trust", "Acceptance", "Inclusion", "Resilience", "Learning" and "Innovation" were considered dominant. Evidence for most of the schemata was found in nearly all the participants thus providing a strong indication that the adaptive schemata model with some refinement is a valid model.

Particularly, "Humanity" (a sub-category of "Fulfilment"), "Freedom", "Trust", "Acceptance", "Resilience", "Learning" and "Innovation" appeared to be stronger than the remainder, based on the number of participants in which these were evident and the richness of the data. Consideration should be given to combining those schemata or (sub-categories of schemata) which were similar, for example, combining "Security" with "In Control" and the "Material" with "Financial".

Four additional categories of schemata (beyond the adaptive schemata model) were also found. These were called "Agility", "Business Orientation", "Godliness" and "Positive Orientation". Support for "Agility", "Business Orientation" and "Godliness"

were found in six of the participants and "Positive Orientation" in five of the participants. These four schemata were more pervasive amongst the participants than a few of the schemata presented in the adaptive schemata model, indicating that the adaptive schemata model can be expanded to include these additional categories.

Care should be exercised in the generalisation of the findings beyond the sample population due to the homogenous nature of the research sample. This sample comprised seven South African Indian males, six of the Muslim faith and one Hindu. The findings may be generalised to this research population, within a similar context. However, given the exploratory nature of the investigation, this should not pose a major threat, as the aim of the investigation was to enhance the understanding of successful entrepreneurs and not to develop universally applicable rules or principles. Other possible limitations such as the subjectivity of participants (personal bias arising from utilising qualitative methods of data collection) and the potential that data obtained and presented may be distorted or incorrect (due to the gathering process being perceived as threatening by participants) must also be noted. Although the schemata manifested differently between participants in this study, certain schemata such as "Godliness" may not manifest at all in other contexts.

The adaptive schemata model appears to be a robust model and research should be performed utilising other samples to determine its validity in different contexts. Since convincing evidence for adaptive schemata was found in this investigation, it is suggested that more attention be placed on the type of schemata that entrepreneurs have when developing and nurturing entrepreneurial talent. Similarly to Bennett-Goleman's model of schemata (which is developmental in nature), the adaptive schemata model should be used to assist entrepreneurs to develop adaptive thought patterns and mental processes thereby enhancing their potential for success.

REFERENCES

- Bennett-Goleman, T. (2001). *Emotional alchemy*. London: Ebury Press.
- Business Times (1996, November 24). *Peers honour Didata & Rupert*. Retrieved October 10, 2002 from the World Wide Web: <http://www.btimes.co.za/96/1124/news/news2.htm>
- Chell, E, Hayworth, J. & Brearley, S. (1991). *The entrepreneurial personality: concepts, cases and categories*. London: Routledge.
- Crous, F. (1999). *Die kontekstualisering van entrepreneurskap*. Unpublished doctoral thesis. Johannesburg: Rand Afrikaans University.
- Crous, M.J. Nortje, J.D. & Van Der Merwe, R.B. (1995). 'n Profiel van suksesvolle kleinsake-entrepreneurs in die Republiek van Suid Afrika: 'n verkenningstudie. *S.A. Journal of Entrepreneurship & Small Business*.
- Derfer, R. (1995). *Mental models: how do our minds work?* Unpublished manuscript, Department of Cognitive Science. California: University of California
- Dommissie, E. (2005). *Anton Rupert: 'n Lewensverhaal*. Cape Town: Tafelberg.
- Drucker, P.F. (1985). *Innovation and entrepreneurship: practice and principles*. London: Heineman
- Esterburg, K.G. (2002). *Qualitative methods in social research*. Boston: McGraw Hill.
- Fiske, S.T. & Morling, B.A. (1995). Schemas/Schemata. In A.S.R. Manstead & M. Hewstone (eds.) *The Blackwell Encyclopedia of Social Psychology*. 1995, Oxford.
- Fourie, L. & Landman, J.P. (2002). "South Africa, how are you?". Paarl: Paarl Print.
- Fredrickson, B. (2003). Positive emotions and upward spirals in organisations. In K.S. Cameron, J.E. Dutton, & R.E. Quin (Eds.). *Positive organisational scholarship: Foundations of a new discipline*. San Francisco: Berrett-Koehler.
- Gartner, W.B. (1989). "Who is the entrepreneur?" is the wrong question. *Entrepreneurship Theory and Practice*. 13 (4), 47 - 68.
- Kets De Vries, M.F.R. The anatomy of the entrepreneur: clinical observations. *Human Relations*, 49 (7), 1990.
- Peterson, M.F. (1995). Leading Cuban entrepreneurs: The process of developing motives, abilities and resources. *Human Relations*, 48 (10), 1995.
- Piaget, J. (1968). *The construction of reality in the child*. London: Routledge & Kegan Paul.
- Rosenthal, T. L. & Zimmerman, B. J. (1978). *Social learning and cognition*. New York: Academic Press.
- Rubin, H.J & Rubin, I. S. (1993). *Qualitative interviewing: the art of hearing data*. London: Sage.
- Rupert, A.E. (1981). *Prioriteite vir mede-bestaan*. Kaapstad: Tafelberg.
- Seligman, E.P. & Csikszentmihalyi, M. (2000). *Positive psychology: an introduction*. *American Psychologist*, 55 (1), 5-14
- Smaling, A. (1992). Objectivity, reliability and validity. In G.J.N. Bruisma & M.A. Zwanenburg (Eds). *Methodology for management specialist: Trends and Methods*. Muiderberg: Coutinho.
- Snyder, C.R. & Lopez, S.J. (2002). *Handbook of positive psychology*. New York: Oxford University Press.
- Strauss, A. & Corbin, J. (1990). *Basics of qualitative research*. Newbury Park: Sage.
- Van Daalen, H.J. (1989). *Individual characteristics and third world entrepreneurial success*. Unpublished doctoral dissertation. Pretoria: University of Pretoria.
- Van de Ven, A.H. (1980). Early planning, implementing and performance of new organisations. In J.R. Kimberley & R. Miles (eds). *The organisation life cycle*. San Francisco: Josey-Bass.
- Wadsworth, B.J. (1979). *Piaget's theory of cognitive development* (2nd ed.). New York: Longman Inc.
- Warneryd, K.E. (1999). The role of macro-economic psychology. *Applied Psychology: An International Review*, 48 (3), 273-296.
- Wickham, P. (1998). *Strategic entrepreneurship: a decision-making approach to new venture creation and management*. London: Pitman.
- Worchel, S., Cooper, J. & Goethals, G.R. (1988). *Understanding social psychology*. Chicago: Dorsey Press.