

**THE PERCEPTION, EXPERIENCE AND APPLICATION OF INTUITION IN  
SELF-REGULATED DECISION MAKING**

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Mini-dissertation (article format) submitted in partial fulfilment of the requirements for the degree Master of Arts in Clinical Psychology at the Potchefstroom campus of the North-West University

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## 1. ACKNOWLEDGEMENTS

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*To my parents, Willie and Carine, for their unrelenting love and support.*

*With special appreciation to Professor Karel Botha for his most valuable contributions and direction throughout this project.*

*To Professor Lesley Greyvenstein for the language editing.*

## 2. CONSENT

### PERMISSION TO SUBMIT THIS ARTICLE FOR EXAMINATION PURPOSES

I, the supervisor, hereby declare that the input and effort of Rónalie van Aardt, in writing this article, reflects the research done by her. I hereby grant permission that she may submit this article for examination purposes in partial fulfilment of the requirements for the degree Magister Artium in Clinical Psychology.

Signed on this day..... in Potchefstroom.

.....  
Prof. Karel Botha

### 3. SUMMARY

Intuition is perceived from the Cognitive Experiential Self-Theory (Epstein 2000) as a self-regulatory skill because both analytic and intuitive processing capabilities are served by cognitive systems that permit individuals to switch back and forth strategically from one approach to the other, as required. However, it is not clear to what extent intuition is applied and experienced as such in day to day decision making. The aim of this study was therefore to explore the role of intuition in self-regulated decision making, as subjectively perceived, experienced and applied from the decision makers' perspective. The first objective was to explore mindfulness regarding intuition as a potential resource in decision making, through i) the perception of intuition; and ii) the subjective experience of intuition. The second objective was to explore the application of intuition in the self-regulated decision making stages of i) goal setting; ii) goal execution; iii) reflection; and iv) adjustment.

A qualitative, exploratory survey research design with directed content analysis as method for data collection and data analysis was followed. An availability sample of 31 adult, undergraduate university students, ranging between 20 and 33 years of age from both gender groups, and able to express themselves in Afrikaans or English, took part in the study. A semi-structured questionnaire was compiled to obtain biographical information as well as data regarding the objectives. Mindfulness regarding intuitive decision making was explored using the attributes described by Langer (1997), namely openness to novelty, alertness to distinction, sensitivity to different contexts, awareness of multiple perspectives and orientation in the present, as guideline. The application of intuition was explored in terms of the extent and efficacy to which participants apply intuition in their decision making within each of four self-regulatory stages. Participants's responses were analysed according to the guidelines for directed content analysis provided by Hsieh and Shannon (2005). Trustworthiness was ensured by following guidelines suggested by Lincoln and Guba (1985), and ethical approval was obtained from the Ethics Committee of the North-West University, Potchefstroom Campus (06K20).

Results indicate that participants appear to be mindful, or “*aware of being aware*” (Tart, 1990) of their functional level of intuitiveness, implying that they identify with, and are familiar to the content of the ongoing experience of intuition. This was specifically evident with regards to sensitivity to different contexts, awareness of multiple perspectives, orientation to the present and alertness to distinction, but less so regarding openness to novelty (Langer, 1997). Secondly, intuition is applied by participants as a resourceful strategy, especially in the first 3 self-regulatory phases. During goal planning, they use intuition as part of a “forethoughtful perspective” (Bandura, 2001, p. 6) to motivate themselves and guide their decision making in anticipation of future events. During goal execution, intuition seems to be applied both as a cognitive-attention deployment strategy (Mischel & Ayduk, 2004) and as a form of attention regulation (Luszczynska, Diehl, Gutiérrez-Doña, Kuusinen, & Schwarzer, 2004) to manage new information and to sustain longer term life and career decisions. During the reflective phase intuition is often used as a metacognitive capability (Bandura, 2001) to reflect upon oneself and the adequacy of one’s thoughts and actions. However, only a minority of participants apply intuition during the adjustment phase as a resource of adaptive flexibility (Brandstädter & Rothermund, 2002) in the effort to change unsuccessful decision making strategies.

It was concluded that intuition is indeed perceived, experienced and applied as a valuable resource in self-regulated decision making by participants in this study. As the study has certain limitations, including the use of a relative homogenous sample, it should be regarded as exploratory and for the purpose of generating hypotheses. It is recommended that the main findings of this study be operationalised within a quantitative research design to determine, for example, the extent to which intuition, mindfulness and intuition application strategies predict effective decision making.

#### 4. OPSOMMING

Intuïsie word vanuit die *Cognitive Experiential Self-Theory* (Epstein 2000) as 'n self-gereguleerde vaardigheid beskou aangesien analitiese en intuïtiewe prosesse deur kognitiewe sisteme begelei word sodat die individu strategies kan afwissel tussen verskillende benaderings, soos wat vereis word. Dit is egter nie duidelik tot watter mate intuïsie as sodanig toegepas en ervaar word in dag-tot-dag besluitneming nie. Die doel van die studie was dus om die rol van intuïsie in self-gereguleerde besluitneming te verken, soos dit subjektief beskou, ervaar en toegepas word vanuit die besluitnemer se perspektief. Die eerste doelwit was om *mindfulness*\* ten opsigte van intuïsie as potensiële hulpbron in besluitneming te verken deur i) die persepsie van intuïsie; en ii) die subjektiewe ervaring van intuïsie. Die tweede doelwit was om die toepassing van intuïsie te verken in die self-reguleringsfases van i) doelstelling; ii) doel-uitvoering; iii) refleksie en iv) aanpassing.

'n Kwalitatiewe, verkennende opname navorsingsontwerp met gerigte inhoudsanalise as metode vir data insameling en analise is gevolg. 'n Beskikbaarheidsteekproef van 31 volwasse, voorgraadse universiteitstudente, tussen die ouderdom van 20 en 33 jaar van beide geslagte, en instaat om hulself in Afrikaans of Engels te verwoord, het deelgeneem aan die studie. 'n Semi-gestruktureerde vraelys is saamgestel om biografiese informasie asook data betreffende die doelwitte te verkry. *Mindfulness* ten opsigte van intuïtiewe besluitneming is ondersoek deur gebruik te maak van die eienskappe daarvan, soos beskryf deur Langer (1997), naamlik openheid vir nuwe idees, onderskeidingsvermoë, sensitiwiteit vir verskillende kontekste, bewustheid van verskeie perspektiewe en oriëntasie in die hede, het gedien as riglyn. Die toepassing van intuïsie is ondersoek in terme van die omvang en doeltreffendheid waarmee deelnemers intuïsie toepas in besluitneming in elk van die 4 self-reguleringsfases. Deelnemers se response is ge-analiseer volgens die riglyne vir gerigte inhoudsanalise, soos voorgestel deur Hsieh en Shannon (2005). Vertrouenswaardigheid is verseker deur die riglyne te volg soos voorgestel deur Lincoln en Guba (1985), en etiese goedkeuring is verkry vanaf die Etiese Komitee van die Noordwes Universiteit, Potchefstroom Kampus (06K20).

Resultate dui eerstens aan dat deelnemers *mindful*, of “*aware of being aware*” (Tart, 1990) van hul funksionele vlak van intuïtiewe blyk te wees, impliserend dat hulle identifiseer met en bekend is met die inhoud van die deurlopende ervaring van intuïsie. Voorafgaande is spesifiek duidelik rakende sensitiewe vir verskillende kontekste, bewustheid van verskeie perspektiewe, oriëntasie in die hede en onderskeidingsvermoë, maar minder so betreffende openheid vir nuwe idees (Langer, 1997). Tweedens word intuïsie toegepas as hulpbronstrategie, veral in die eerste 3 self-reguleringsfasies. Gedurende doelstelling gebruik hulle intuïsie as deel van ’n vooruitbeplande perspektief (Bandura, 2001, p. 6) om hulself te motiveer en hul besluitneming te rig in antisipering van toekomstige gebeure. Gedurende doeluitvoering blyk dit dat intuïsie toegepas word as beide ’n kognitiewe-aandags ontplooiingstrategie (Mischel & Ayduk, 2004) en as ’n vorm van aandagsregulering (Luszczynska et al., 2004) om sodoende nuwe informasie te bestuur en om langtermyn lewens- en beroepskeuses te handhaaf. Gedurende die refleksie fase word intuïsie meestal gebruik as ’n meta-kognitiewe vermoë (Bandura, 2001) om op die self asook die doeltreffendheid van eie denke en aksies te reflekteer. Hierteenoor, pas die minderheid deelnemers intuïsie toe gedurende die aanpassingsfase as ’n bron van aanpasbare buigzaamheid (Brandstädter & Rothermund, 2002) in ’n poging om onsuksesvolle besluitnemingstrategieë te verander.

Dit is bevind dat intuïsie inderdaad beskou, ervaar en toegepas word as ’n waardevolle hulpbron in self-gereguleerde besluitneming deur deelnemers van dié studie. Omdat die studie egter sekere beperkinge het, insluitende die gebruik van ’n relatief homogene steekproef, moet dit as verkennend, en vir die doel van hipotese-generering beskou word. Dit word aanbeveel dat die hoofbevindinge van die studie in ’n kwantitatiewe ontwerp geoperasionaliseer word om byvoorbeeld die mate waartoe intuïsie-strategieë effektiewe besluitneming beïnvloed, te bepaal.

\* Voetnota: Daar bestaan tans geen erkende Afrikaanse term vir “Mindfulness” nie.

## **5. PREFACE**

### **5.1 Article format**

The article format as described by General Regulation A13.7 of the North-West University was chosen, for the purpose of this mini-dissertation, which is part of the requirements for a professional master's degree.

### **5.2 Selected journal**

The target journal for submission of the current manuscript is the *South African Journal of Psychology*. Author instructions appear on the next page.

## 6. INSTRUCTIONS TO AUTHORS: South African Journal of Psychology



South African Journal of Psychology

### Instructions to authors

#### Submitting a manuscript

SAJP is a peer-reviewed journal publishing empirical, theoretical and review articles on all aspects of psychology. Articles may focus on South African, African or international issues. Manuscripts to be considered for publication should be e-mailed to [sajp@unisa.ac.za](mailto:sajp@unisa.ac.za). Include a covering letter with your postal address, email address, and phone number. The covering letter should indicate that the manuscript has not been published elsewhere and is not under consideration for publication in another journal. An acknowledgement of receipt will be e-mailed to the author within a few days and the manuscript will be sent for review by three independent reviewers. Incorrectly structured or formatted manuscripts will not be accepted into the review process.

#### Manuscript structure

- The manuscript should be no longer than 30 pages and no shorter than 10 pages.
- **First page:** The full title of the manuscript, the name(s) of the author(s) together with their affiliations, and the name, address, and e-mail address of the author to whom correspondence should be sent.
- **Second page:** The abstract, formatted as a single paragraph, and no longer than 300 words. A list of at least six key words should be provided below the abstract, with semi-colons between words.
- **Subsequent pages:** The text of the article. The introduction to the article does not require a heading.
- **Concluding pages:** A reference list, followed by tables and figures (if any). Each table or figure should be on a separate page. Tables and figures should be numbered consecutively and their appropriate positions in the text indicated. Each table or figure should be provided with a title (e.g., Figure 1. Frequency distribution of critical incidents). The title should be placed at the top for tables and at the bottom for figures.

#### Manuscript format

- The manuscript should be an MS Word document in 12-point Times Roman font with 1.5 line spacing. There should be no font changes, margin changes, hanging indents, or other unnecessarily complex formatting codes.
- American Psychological Association (APA) style guidelines and referencing format should be adhered to.
- Headings should start at the left margin, and should not be numbered. All headings should be in bold. Main headings should be in CAPITAL LETTERS.
- A line should be left open between paragraphs. The first line of a paragraph should not be indented.
- Use indents only for block quotes.
- In the reference list, a line should be left open above each reference. Do not use indents or hanging indents in the reference list.

#### Language and punctuation

Manuscripts should be written in English. As the SAJP does not employ a full-time or dedicated language editor, authors are requested to send their manuscripts to an external language specialist for language editing before submission.

## 7. MANUSCRIPT

**The perception, experience and application of intuition in self-regulated decision making**

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## **Abstract**

This study aimed to explore the role of intuition in self-regulated decision making, as subjectively perceived, experienced and applied from the decision makers' perspective. A qualitative, exploratory survey research design with directed content analysis as method for data collection and data analysis was followed. An availability sample of 31 adult, undergraduate university students took part in the study. A semi-structured questionnaire with 9 items on mindfulness and self-regulation was compiled to collect data. Results indicate that participants appear to be mindful regarding their functional level of intuitiveness, and that intuition is applied as a resourceful strategy, especially in the first 3 self-regulatory phases. During goal planning, intuition is used to motivate and guide decision making in anticipation of future events. During goal execution, intuition seems to be applied both as a cognitive-attention deployment strategy and as a form of attention regulation to manage new information and to sustain longer term life and career decisions. During the reflective phase intuition is often used as a metacognitive capability to reflect upon oneself and the adequacy of one's thoughts and actions. Only a minority of participants apply intuition during the adjustment phase as a resource of adaptive flexibility. It was concluded that intuition is indeed perceived, experienced and applied as a valuable resource in self-regulated decision making by participants in this study. Limitations of the study were indicated and recommendations were made regarding further research.

## **Keywords:**

[Intuition; mindfulness; self-regulation; goal setting; goal execution; goal reflection; goal adjustment; decision making ]

Intuition as a concept has been studied since the 17<sup>th</sup> century, with attributed expositions ranging between metaphysics, philosophy and psychology (Thompson, 2004). According to Hodgkinson, Langen-Fox and Sadler-Smith (2008, p. 2), the term ‘intuition’ stems from the Latin word *in-tuir*, which can be translated as ‘looking, regarding or knowing from within’. Intuition is defined as a cognitive process implicating simultaneous assessment of situations and concluding judgments, without the benefit of an explicit analysis of facts (Myers, 2002), or as an affectively charged judgement and learned expertise that holds pattern recognition at its core (Dane & Pratt, 2007; Luecke, 2007). Gladwell (2005) prefers the term ‘rapid cognition’ to intuition, implying a type of cognition mostly lacking rational thought, although it is presumably regulated by the adaptive unconscious. The Cognitive Experiential Self-Theory (Epstein 2000) explains the regulatory nature of intuition by arguing that both analytic and intuitive processing capabilities are served by cognitive systems that permit individuals to switch back and forth strategically from one approach to the other, as required. In support of this, Dane and Pratt (2007), Kraft (2006) and Phillips, Klein and Sieck (2004) describe intuition as a skill that can be developed, practiced and fine-tuned.

According to Cervone, Shadel, Smith and Fiori (2006), self-regulatory behaviour is the most genuine manifestation of the agentic and purposive nature of human beings. It is a process through which actions are initiated, adjusted, interrupted, terminated or altered to foster ultimate attainment of personal goals, plans, or standards (Baumeister & Heatherton, 1996). The term self-regulation is broad and encompasses many different processes through which control is exercised over functions, states and inner processes (Kurman, 2001; Vohs & Baumeister, 2004). In this study self-regulation is conceptualised as a mindful process of goal setting, goal execution, reflection and adjustment (Brown & Ryan, 2003; Zimmerman, 2000).

Mindfulness refers to a flexible state of mind (Langer, 2002), and is considered to be an “enhanced attention to and awareness of current experience or present reality” (Brown & Ryan, 2003, p.822). It contributes to conscious self-regulation by instilling awareness with qualities such as acceptance, non judging, nonstriving and openness (Kabat-Zinn et al., 1992). According to Shapiro and Schwartz (2000), mindfulness is

conscious, impartial self-regulation, defined by Kabat-Zinn et al. (1992, p. 937) as “moment-to-moment awareness.” According to Langer (1997), mindfulness includes openness to novelty, alertness to distinction, sensitivity to different contexts, awareness of multiple perspectives and orientation in the present. Mindful individuals should, therefore, have increased access to their intuition as they would be better equipped to read ‘cues’ related to intuition as a result of heightened awareness. Mindfulness regarding intuition would also make it easier to regulate intuition, and to draw on intuition appropriately when making decisions.

Goal setting, goal execution, reflection and adjustment are the components of an iterative, self-steering process that represents the executive nature of self-regulation (Lezak, Howieson & Loring, 2004). Goal setting, according to Zimmerman (2000), involves deciding upon specific outcomes of performance, in this instance more specifically around if and how to use intuition in decision making. Goal execution is fostered through self-directed, intentional behaviour (Schmeichel & Baumeister, 2004), and includes planning and problem solving, switching from one task to another, directing mental attention, resisting interference, troubleshooting, and performing novel tasks. Reflection entails the beliefs regarding the progress toward goals (Maddux, 2005). Reflective ability is important in self-regulation because the beliefs about the progress made toward goals are major determinants of emotional reactions during goal-directed activity. Finally, adjustment can be defined as a response to a change in the environment, for example a perceived discrepancy between goal intention and goal outcome, that allows suitable adaptation (Sharpe & Curran, 2006).

Decision making, from a self-regulatory perspective, can be defined as the process of “choosing a course of action from among two or more alternatives while in the midst of pursuing one’s goal” (Miller & Byrnes, 2001, p. 237). According to the Self-Regulation Model of Decision Making (SRMDM) (Byrnes, 1998; Byrnes, Miller, & Reynolds, 1999; Miller & Byrnes, 1997), the self-regulated decision maker is a person who sets adaptive goals and takes appropriate measures to achieve these goals. This process involves generating, evaluating, selecting, and learning from goal-directed choices while simultaneously managing the limitations, biases and personal

tendencies that may otherwise interfere with the attainment of adaptive goals (Byrnes, 1998). For the decision maker, a sense of control over both cognitive and psychological processes as well as behaviour, is precipitated through changes in one's understanding of effective and ineffective forms of decision making. These changes, in turn, promote the implementation of strategies to overcome factors that lead to errors in decision making (Miller & Byrnes, 2001). According to Myers (2002), the most prominent advantage of intuition in decision making lies in terms of accuracy of the outcome of decisions, while Stepanossova and Grigorenko (2006) indicate that intuition is specifically regarded as a means of solving a novel or creative problem in unfavourable and frustrating cases where existing knowledge and logical thinking fail, uncertainty is high and variables are less predictable. However, as intuitions are often classified as mental shortcuts or heuristics that are highly susceptible to irrational biases within the decision making process (Pretz & Tetz, 2007), it is important that intuition is effectively regulated.

Although the argument for intuition as an agentic resource in self-regulated decision making appears to be strong, there is a lack of research findings, especially regarding the extent and nature to which intuition is subjectively perceived, experienced and applied as such in day to day decision making. One reason is that intuition continues to be overlooked or discounted within the mainstream of the discipline of psychology (Hodgkinson et al., 2008). Another reason, given that the question at stake here is the subjective and unique way in which people experience intuition, as opposed to an "objective reality" is the lack of related studies from a qualitative perspective. Lyneham, Parkison and Denholm (2008), as well as Ruth-Sahd and Tisdell (2007) explored intuitive decision making in the nursing context from a phenomenological viewpoint, however, without a focus on self-regulation. This study could thus shed new light on, and expand the theory of intuitive decision making by approaching it from a qualitative, self-regulatory framework.

The general aim of the study was to explore the role of intuition in self-regulated decision making, as subjectively perceived, experienced and applied from the decision makers' perspective, and to contribute to the literature in this regard. The first objective was to explore mindfulness regarding intuition as a potential resource in

decision making, through i) the perception of intuition; and ii) the subjective experience of intuition. A second objective was to explore the application of intuition in the self-regulated decision making stages of i) goal setting; ii) goal execution; iii) reflection; and iv) adjustment.

## **METHOD**

A qualitative, exploratory survey research design with directed content analysis as method for data analysis was followed.

### **Participants**

An availability sample of 31 adult, undergraduate students at the Potchefstroom Campus of the North-West University (NWU) with psychology as a subject, ranging between 20 and 33 years of age (with a mean age of 21.1 years) from both gender groups took part in the study. Of these 24 were female and 6 were male, with 1 participant not indicating his or her gender; 22 were white, and 9 were black. All participants were able to express themselves in Afrikaans or English.

### **Data collection**

Themes and subthemes, based on self-regulation theory as well as the two objectives of this study, were determined before data collection started. Theme 1, mindfulness, relates to objective 1 and consists of two subthemes: the perception of intuition and the subjective experience of intuition. Theme 2, the application of intuition in decision making, relates to objective 2 and consists of 4 subthemes representing the phases of self-regulation namely goal setting, goal execution, reflection and adjustment. A semi-structured questionnaire was compiled to obtain biographical information as well as the data regarding the objectives. Items generated for theme 1 were: i) *How do you define intuition?*; ii) *Do you regard yourself as an intuitive person? If yes, please explain;* and iii) *How do you experience your intuition?* The items for theme 2 were: i) *What role does intuition play in your decision making? Give practical examples.* ii) *How does your intuition influence your decision making, if at all?;* and iii) *Do you regard intuition more as a resource or as an obstruction in your decision making? Explain.* Participants were instructed to respond as comprehensively as possible. In addition, the structure of the questionnaires allowed ample space for responses. In

general, responses were found to be complete and comprehensive which provided the researcher with a rich data set of 155 A4-size pages.

### **Data analysis**

Participants's responses were analysed according to directed content analysis (Hsieh & Shannon, 2005). The goal of directed content analysis (Hsieh & Shannon, 2005) is to extend conceptually, through further exploration, a theoretical framework or theory, in this instance the self-regulation theory of decision making, which grounded the research question. Firstly, concepts were identified by reading through the data and highlighting words, phrases or sentences related to the predetermined themes and subthemes. Mindfulness regarding intuitive decision making (objective 1, items 1-3) was explored using the attributes of mindfulness as described by Langer (1997), namely openness to novelty, alertness to distinction, sensitivity to different contexts, awareness of multiple perspectives and orientation in the present, as guideline. Application of intuition (objective 2, items 4-6) was explored in terms of the extent and efficacy to which participants apply intuition in their decision making within each of the self-regulatory stages, namely goal planning, goal execution, reflection and adjustment. These were then integrated and further refined during subsequent analyses. Finally, data that could not be coded into one of the themes or subthemes were re-examined to allow for the possible emergence of new aspects and further enrichment of the analysis.

### **Trustworthiness**

According to Hsieh and Shannon (2005), directed content analysis has some inherent limitations in that it is possible that researchers approach the data with an informed, but nonetheless, strong bias. Thus, the researcher might have been likely to find evidence that is supportive rather than nonsupportive of self-regulation theory. Also, an overemphasis on self-regulation theory could have clouded the ability to recognise contextual features of intuition not related to self-regulated decision making. Trustworthiness was, therefore, extremely important and the following guidelines suggested by Lincoln and Guba's (1985) were applied to enhance the validity of the study. Credibility was ensured through triangulating data with a literature review as well as through obtaining feedback and approval from participants. In addition, to

prevent or minimise bias towards self-regulation theory (Hsieh & Shannon, 2005), questions did not contain references to 'mindfulness' or any of the self-regulation stages, ensuring that participants were not provided with cues that could influence their responses. Transferability was ensured in stating the theoretical parameters of the research and by describing the data analysis comprehensively. Dependability was ensured by means of a dense description of the obtained data and the use of the researcher and an experienced qualitative researcher as independent coders. Conformability was ensured through an audit trail of the entire research process, including the raw data, data analysis and process notes.

### **Procedure and ethical aspects**

Ethical approval was obtained from the Ethics Committee of the NWU (06K20). Participants were obtained by approaching adult students from different faculties, enrolled for a graduate psychology course, at the NWU. From a possible 52 students approached during a first contact session, 31 were available to participate. Initially the idea was to include more participants, but as data saturation was obtained, and a satisfying picture of how intuition is perceived, experienced and applied emerged, it was decided not to extend the data base. After informed consent was given, questionnaires were completed in a classroom context with the researcher present to assist should any questions arise. Guidelines regarding confidentiality and duality of roles as provided by the NWU was strictly adhered to during this contact session.

## **RESULTS**

A visual summary of the results is shown in figure 1 (attachment 1 in this manuscript). Each theme will be discussed separately.

[insert figure 1]

### **THEME 1 - MINDFULNESS OF INTUITION**

#### **The perception of intuition**

The subjective understanding of intuition is defined in 3 distinct ways by participants, namely as an instinct, a cognition and as a feeling. The majority of participants perceive themselves to be intuitive.

Intuition as an instinct is perceived as serving a protective role, in the form of a warning, when one is in the process of making decisions and guiding one to make the right decision or to prevent against making wrong decisions. One participant responded that intuition as an instinct *“serves as a warning or motivation to make a decision or take a specific course of action.”* They also labelled this instinct as equating to the concept of a ‘6th sense’ or a ‘gut feeling.’ One participant, for example, said: *“an instinctual knowledge that one is doing the right thing”*, while another said *“intuition is the feeling of knowing in your gut that what you are sensing is accurate and insightful without having any evidence.”* Participants also related intuition as instinct to something spiritual or religious. One participant said: *“intuition is a God given feeling that is experienced in any situation... a positive or negative feeling can result regarding current or future aspects, thus instinct”*. Some participants associated a peaceful feeling regarding a certain decision to be from the Holy Spirit serving the purpose of affirming that the right decision was made.

Intuition as a cognition is seen by participants as something that guides norms and values that were imposed or learned during their upbringing. One participant responded that *“intuition is an individual perspective based on a person’s attitude and values, how they were raised, what they were raised to believe....”*. For some participants, intuition assists them in making constructive decisions and evaluating them, explained by one participant as that intuition implies *“a way of utilizing your intellect, a way of making vital decisions and reaching conclusions by means of using one’s personal judgement”*. Some participants view intuition as a personal reflection based on one’s own subjective thoughts and perceptions, which in turn could influence, lead, or direct cognitive thoughts, processes, decisions and perceptions. A participant pointed out: *“...something personal, it is someone’s thoughts and perceptions”*. Lastly, intuition is related to predict future situations, for example *“...the ability to predict various events or experiences based on little or no factual evidence to support these predictions”*.

Intuition as a feeling is perceived as an inner motivational feeling or driving force that *“gives you the will to do something or not”*. They also perceive intuition as a feeling

that influences them on a cognitive level, for example: “ *A feeling that guides and leads one’s opinions and decisions*”. Intuition as a feeling is again described as something spiritual, although it differs from intuition as an instinct in the way that it refers to here, as one participant explains: “*a feeling resulting from specific views that I have. It requires of me to make a judgement based on the feeling. I believe that intuition is a gift from supernatural i.e. Holy Spirit*”.

With these perceptions of what intuition entails, more than two thirds of participants perceive themselves to be intuitive. It seems as if they benefit from utilizing their intuition as it guides them, warns them, assists them in reaching conclusions fast and they report good outcomes when they put their intuition to use. They also perceive intuition as assisting them in decision making, especially in instances where they have to stand still, think and evaluate different options, and possibly alter wrong decisions. Intuition also appears to assist participants in interpersonal relationships whereby issues such as trust, honesty and sincerity is indicated. These participants report that they are in touch with themselves and their intuitions and report a certain awareness in themselves as result of dreams, their own human nature and paying close attention to their inner guides. One participant who views him/herself as intuitive reported “... *because my intuition is most of the time right. I trust myself and have always acted on gut feeling, with success*”. Less than a third of participants do not perceive themselves as intuitive, attributing it to a lack of attention towards intuitive feelings, not being aware of it, not giving it any importance in their lives, and making their decisions based on facts only. One participant mentioned: “*I have never actually thought of anything like it*”. One participant admitted to being intuitive although never acting on it.

### **The experience of intuition**

Three concepts emerged from participants regarding their experience of intuition, namely as guidance, as an emotion and as a spiritual or religious resource.

In the experience of intuition as a guiding process, it appears as if participants benefit greatly from utilizing intuition as it imparts positive guidance in their lives in order to protect them and avoid negative situations as one participant responded: “*I experience*

*it as a positive aspect that has helped me to avoid negative and dangerous situations*". Participants value intuition greatly as it is perceived as something that gives an advantage in decision making, and they experience intuition as contributing and guiding them in making quick, but yet, accurate decisions. They also experience intuition to inform them when they have made the wrong decision although it was not indicated how this is experienced. In addition, they also report that intuition assists them in judging, evaluating and summarizing a given situation fast, and it seems as if intuition hereby influences their decisions. For example: "*..it helps to make a decision fast or to evaluate a situation*".

Participants experience intuition as an emotion in terms of instant positive or negative feelings, including emotions like excitement or worry, that cannot be ignored. As one participant responded: "*I experience intuition mainly through feelings of excitement or frightening feelings...*". It seems as if this is an emotional experience that prompts one for action, and is also related to courage by some participants. The experience of intuition can thus be seen as something that is felt or experienced on an emotional level, and participants find that these emotional experiences prove to be accurate. One participant responded that: "*I experience it as very unpredictable and mostly unexpected. If I do react on these feelings it is mostly accurate*".

A smaller number of participants view the experience of intuition as a spiritual or religious resource, where they perceive God as leading them to insight through the use of intuition, which in turn leaves them with a feeling of content. Intuition is also experienced as guidance from the Holy Spirit who is seen as part of the self and, therefore, the experienced self can be seen as guided by intuition. One participant remarked: "*I experience it as a guidance from the Holy Spirit. I would not be who I am without it. It is part of me*".

## **THEME 2 -THE APPLICATION OF INTUITION**

### **Intuition in the goal setting phase**

Intuition is regarded as guidance in planning of goals, motivation to pursue goals, affirmation regarding whether the correct decisions were made, and also assisting in decision making within the context of interpersonal relationships.

Intuition as guidance is seen as giving direction, with other cognitive processes such as intellect, perceptions and other's opinions to the planning of goals, life choices and life goals. One participant felt that intuition: "...gives you a direction and at least this feeling gives you something positive and enables one to think before they do something". Intuition is also viewed as aiding participants to rethink the expected outcomes or goals of a certain decision before implementing the action. Intuition also serves the role of affirming when the right decision was made. One participant responded that intuition: "...helps me to know that my actions are correct. It is an affirmation that I have made the right decision". Some participants seem to indicate that intuition is something they utilize as a last resort when all pro's and con's have been evaluated. One participant reported that "Sometimes I have an intuition about a decision, but I prefer to consider the pro's and con's before taking the intuition into consideration". In addition, they perceive intuition as a motivation to pursue a chosen goal or provide the opportunity to make the correct decision. In this regard, one participant indicated: "Intuition gives me the willpower to pursue a goal", while another participant responded that: "intuition serves as a guideline to keep me motivated and positive about the world".

Intuition is especially perceived as playing a vital role in decision making relating to interpersonal relationships, more so when having to decide on appropriate behaviour or actions in interpersonal relationships, for example: "Intuition helps me with my behaviour and decisions regarding relationships". A smaller number of participants view the influence of intuition as important in establishing whether they can trust another person or not, for example: "Intuitions do influence my decisions especially with regard to trusting a person".

### **Intuition in the goal execution phase**

Intuition is clearly applied by participants in the execution of goals related to decision making, as a form of willpower, evaluation of information, assistance and guidance in following through long-term decisions.

Intuition gives them the willpower in the execution of decisions especially when other resources or options are not available, for example: *"....it gives me the will to give my all or nothing"*. They also perceive intuition to aid them in evaluating, summarizing, and utilizing information to reach positive outcomes: *"It influences my decisions to a great extent, due to the fact that I do not only utilize the given information, but I also use my gut feeling to make decisions and try to reach positive outcomes"*. Intuition is seen as assisting in utilizing given information to reach positive outcomes, thereby not only improving the quality of decisions but in turn also learning from them. One participant said: *"Intuition assists with the decision making process and enhances the quality thereof"*. Some participants reported that they only execute decisions if they have first taken their intuition regarding a certain decision into account, and that through utilizing their intuition, correct choices and outcomes follows.

They also reported that intuition assists and guides them with following through on life and career choices, for example: *"Intuition helps you with your life and your choices"*. Some participants feel that intuition and the opinions of others lead to action being taken, and that intuition enables one to think and then act upon certain situations. One participant, however, reported that she will disregard intuition if it contradicts certain of her values or beliefs.

### **Intuition in the reflection phase**

Intuition in the reflection phase is viewed by participants as playing a guiding and positive feedback role in decision making when things do not go according to plan.

Intuition plays a guiding role in making decisions, especially when one is in doubt. One participant responded that: *"intuition sometimes takes the lead and can help you when you no longer know what to do"*. They also perceive intuition as positively assisting them in the absence of other resources when they are faced with a difficult decision, for example: *"When I can't decide and struggle in making the decision reasonably I might take intuition into consideration"*. They also report that intuition enables them to think things through thoroughly before going over to action, for example: *"it gives you a direction and at least this feeling gives you something positive and enables one to think before they do something"*. This is supported by

their perception of intuition, indicated earlier, as assistance in decision making where they have to stand still, think and evaluate different options, and possibly alter wrong decisions.

Participants also perceive the role of intuition in the reflection phase as leaving them feeling good about their decisions, as they report it to be a gut feeling that proves to be a positive influence as well as an extra source of information. Some participants indicated that they have not yet experienced dissatisfaction in their intuitions, for example “*my intuition has never let me down*”. Although they report that intuition sometimes may complicate the making of decisions they, however, did not explain exactly what they meant with this.

### **Intuition in the adjustment phase**

The role of intuition in the adjustment phase did not emerge as a strong theme, however, it is perceived by some participants as an added advantage and a learning resource in the adjustment of outcomes. They indicate that decisions based on intuition resulted in adjusting their lives and choices for the better. One participant responded: “*Intuition led me to realize that my life couldn't go on the way it was. Intuition led me to change my life and I am the better person for it*”. Another participant indicated that “*in the instance of analyzing this intuition and I find that my decision was 'wrong' I will definitely adjust it*”. Intuition, as an extra resource, therefore assists them in adjusting specific outcomes as it gives them an added advantage in terms of knowledge. Some participants felt that they learned from decisions which might in future impact on other decisions. According to one participant “*intuition is a resource, because at the end you learn from the decision you make in a constructive manner*”.

### **DISCUSSION**

Participants' mindfulness regarding their intuition in decision making was explored through their perception and experience of intuition. Using the attributes of mindfulness as described by Langer (1997) as guideline, it appears as if the majority of participants tend to be mindful, to a large extent, regarding their intuition.

The strongest evidence of mindfulness relates to participants' *sensitivity to different contexts* and *awareness of multiple perspectives* (Langer, 1997) as indicated by the diverse ways in which they perceive and experience intuition. Intuition is perceived as an instinct, a cognition, and as a feeling, each with different functions like protection, guidance, personal reflection and spirituality. They reported diverse experiences of intuition, for example as different positive and negative emotions, as well as different advantages of intuition in decision making like judging, evaluating and the ability to make quick decisions. Their perceptions and experiences concur with the rich diversity in which intuition is described in the literature, for example as an instinct (Carlson, 2004; Hodgkinson et al., 2008); as a cognition (Cloninger, 2005; Gladwell, 2005; Kraft, 2006; & Myers, 2002); and as affect (Dane & Pratt, 2007; Luecke 2007; Pretz & Totz, 2007). Ruth-Sahd and Tisdell (2007) also found connections between intuition and a spiritual source in their qualitative study. Thus, participants show a sensitivity to the complexity and richness of intuition in general, but also in decision making in particular, and an awareness of multiple perspectives about intuition.

Participants also appear to be *orientated in the present* (Langer, 1997) because those participants who perceived themselves as intuitive indicated that intuition put them in touch with themselves, contributes to self-awareness and forces them to '*stand still*' when altering wrong decisions. Their intuition often acts as a sixth sense or a gut feeling they have to be aware of to make correct decisions. As a cognition, participants perceive intuition as helping them in their personal reflection about decision making. It also contributes to present orientation through its spiritual nature when it is experienced as 'part of me.'

*Alertness to distinction* (Langer, 1997) is evident in participants' use of intuition to distinguish between making right and wrong decisions, as a spiritual instinct or feeling that helps in their judgment, and in interpersonal relations where they have to distinguish between issues such as trust, honesty, sincerity and the poor intentions of others. It is also evident in their experience of intuition as an emotion with distinct meanings like excitement, courage and worry. Lyneham et al. (2008) found that emergency nurses perceive knowledge and experience as pre-understandings for intuition. This is extremely important as it suggests that intuition, in isolation, may

have the opposite effect and cloud alertness. Evidence for an integrated relationship between intuition and rational cognitions, also emerged from this group of participants, for example, “*a way of utilizing your intellect, a way of making vital decisions and reaching conclusions by means of using one's personal judgement*”. Finally, participants’ mindfulness was also noted, although to a lesser extent, through an *openness to novelty* (Langer, 1997), especially in their perception of intuition as a cognition that guides their decision making and ability to predict the future, and in their experience of intuition as a feeling that guides their decisions. They appear thus to be able to ‘listen’ to their intuition in exploring new ways of thinking, predicting and deciding.

Although the majority of participants perceive themselves to be highly intuitive, according to Hodgkinson et al. (2008, p. 13) there is a “tendency to overestimate the correctness of one’s intuition, and a need to answer the unresolved question of the accuracy of intuitive judgments,” and that there is a need to develop and validate better approaches to its assessment.

Results show that intuition is applied as resource in the whole self-regulatory decision making process. Intuition appears to be very important for participants in the *goalsetting phase* as it guides and motivates them to make correct decisions. Intuition was identified as the most influential factor in decisions based on past experiences where the use of intuition has proven beneficial to the self and in relations, and as leading to both positive and expected goals or outcomes. According to Zimmerman (2000), goal setting is part of task analysis in the forethought phase of self-regulation and involves deciding upon specific outcomes of performance. In this regard, it seems as if participants use intuition as part of a “forethoughtful perspective” (Bandura, 2001, p. 6) to motivate themselves and guide their decision making in anticipation of future events. When projected over a long time course on matters of value, a forethoughtful perspective provides direction, coherence and meaning to one’s life. Intuition though can also be based on past failures, which in turn can induce avoidance motivation (Higgins, Grant & Shah, 1999). From a self-determination perspective (Ryan & Deci, 2000), intuition may foster autonomous regulation which occurs when a goal is chosen or emanates from one’s self, and is set because of

personal importance as opposed to controlled regulation which occurs when people feel coerced or pressured to attain a goal set by external or internal forces.

In the *goal execution* phase, participants apply intuition in a typical self-directed and intentional executive fashion as motivation to decision making when other resources are not available, to evaluate, summarize and utilise information to reach positive outcomes and to assist them in following through life- and career choices. Participants in the study of Lyneham et al. (2008) described intuition “as a way of acting” in emergency nursing where quick decision making is extremely important. Bandura (2001, p. 8) argues that an agent has to be not only a planner and forethinker, but a motivator and self-regulator as well. Having adopted an intention and an action plan, one cannot simply sit back and wait for the appropriate performances to appear. Agency thus involves not only the deliberative ability to make choices and action plans, but the ability to give shape to appropriate courses of action and to motivate and regulate their execution. According to Mischel and Ayduk (2004), motivation in effortful self-regulation begins with an encoding process in which the subjective meaning of the situation is appraised. The appraisal itself activates expectations and beliefs, affective reactions, values and goals. It thus appear as if participants in this study use intuition as part of this appraisal, which motivates them to put their decisions into practice. In addition, intuition seems to be part of a cognitive-attention deployment strategy (Mischel & Ayduk, 2004) which the individual has to rapidly access and flexibly utilize to enhance willpower. The fact that participants also use intuition to manage new information and follow through in longer term decisions, may be seen as a form of attention regulation (Luszczynska, Diehl, Gutiérrez-Doña, Kuusinen & Schwarzer, 2004), defined as the ability to organise incoming stimuli in order to maintain a calm state of mind, delay gratification, tolerate change and create the cognitive and behavioural response to selected stimuli exclusively.

In the *reflection* phase intuition guides and protects the participants when in doubt and do not know what to do when difficult decisions have to be made, also assisting them when they have to stand still, think and evaluate different options, and to reflect on wrong decisions made. Intuition also acts in providing them with feedback, for example feeling intuitively good about successful decisions. According to Bandura

(2001), people are not only agents of action but self-examiners of their own functioning. The metacognitive capability to reflect upon oneself and the adequacy of one's thoughts and actions is essential to agency. Through reflective self-consciousness, people evaluate their motivation, values, and the meaning of their life pursuits. Intuition as feedback should be seen in context of self-regulatory behaviour that serves as a feedback loop to decrease the amount of discrepancy between ideal and desired behaviours (Jackson, Mackenzie & Hobfoll, 2000). This is because feelings arise as a consequence of a feedback process, as a sign to adjust the rate of progress, so that if the rate of progress is below the criterion, negative affect arises, and if the rate is high enough to exceed the criterion, positive affect arises (Carver, 2004).

Only a few participants mentioned the application of intuition in the *adjustment phase*. The majority of participants did not comment on the adjustment of outcomes of decisions as they perceive the use of intuition as mostly contributing to making the correct decisions. Those who did, indicate that intuition based decisions have led them to favourably adjust their lives and choices. Intuition, as an extra resource, assists them in adjusting specific outcomes as it gives them an added advantage in terms of knowledge. Some participants felt that they learned from decisions which might in future impact on other decisions. This concurs with Carver and Scheier's (2000) observation that when people experience adversity in trying to move toward their goals, they may consider additional resources or alternative approaches to the problem. This depends on adaptive flexibility, which implies "a readiness to switch to new and more effective means for reaching a goal and requires a capability of disengaging from blocked goals and of breaking up frames of rationality that gradually tend to become constrained and selective during the course of executing a plan" (Brandstädter & Rothermund, 2002, p. 120). For a minority of participants, thus, intuition enhances adaptive flexibility in the effort to change unsuccessful decision making strategies. This could imply that they are to a lesser extent mindful about the value of intuition when adjusting decisions – perhaps relating to the fact that they are less mindful in terms of openness to novelty.

## CONCLUSION

The general aim of the study was to explore the role of intuition in self-regulated decision making, as subjectively perceived, experienced and applied from the decision makers' perspective.

Firstly, it appears as if participants are, to a large extent, mindful, or "aware of being aware" (Tart, 1990) of their functional level of intuitiveness, implying that they identify with, and are familiar to the content of the ongoing experience of intuition. This was specifically evident with regards to the attributes of mindfulness described by Langer (1997) as sensitivity to different contexts, awareness of multiple perspectives, orientation to the present and alertness to distinction, but less so regarding openness to novelty. Although mindfulness possibly put them in a good position to fully utilize the potential intuition provides in decision making, it does not necessarily mean that they are able to successfully apply intuition in decision making

Secondly, intuition is applied by participants in this study as a resourceful strategy, especially in the first 3 self-regulatory phases. During goal planning, participants use intuition as part of a "forethoughtful perspective" (Bandura, 2001, p. 6) to motivate themselves and guide their decision making in anticipation of future events. This may foster autonomous regulation which occurs when a goal is chosen or emanates from one's self, as opposed to controlled regulation. During goal execution, intuition seems to be applied firstly as a cognitive-attention deployment strategy (Mischel & Ayduk, 2004) which can be rapidly accessed and flexibly utilized to enhance willpower, and secondly as a form of attention regulation (Luszczynska et al., 2004) to manage new information and to sustain longer term life and career decisions. During the reflective phase, where goals and outcomes are compared, intuition is often used as a metacognitive capability (Bandura, 2001) to reflect upon oneself and the adequacy of one's thoughts and actions. Intuition is also perceived as affective feedback which are used to adjust decisions when necessary. However, only a minority of participants apply intuition during the adjustment phase as a resource of of adaptive flexibility (Brandstädter & Rothermund, 2002) in the effort to change unsuccessful decision making strategies. This could imply that they are to a lesser extent mindful about the value of intuition when adjusting decisions.

It is clear from both the literature review and the results of this study that intuition is perceived and applied as valuable resource in self-regulated decision making. One possible limitation of the study is the homogenous sample of participants, all students in psychology, that could have contributed to a heightened awareness and sensitivity to intuition. It is also not clear to what extent participants overestimate the accuracy of intuition within different decision making contexts, and if similar trends would emerge for different age, ethnic and gender groups. The implication is therefore that the results should be regarded as exploratory and for the purpose of generating hypotheses. It is recommended that the main findings of this study be operationalised within a quantitative research design to determine, for example, the extent to which intuition mindfulness and intuition application strategies predict effective decision making.

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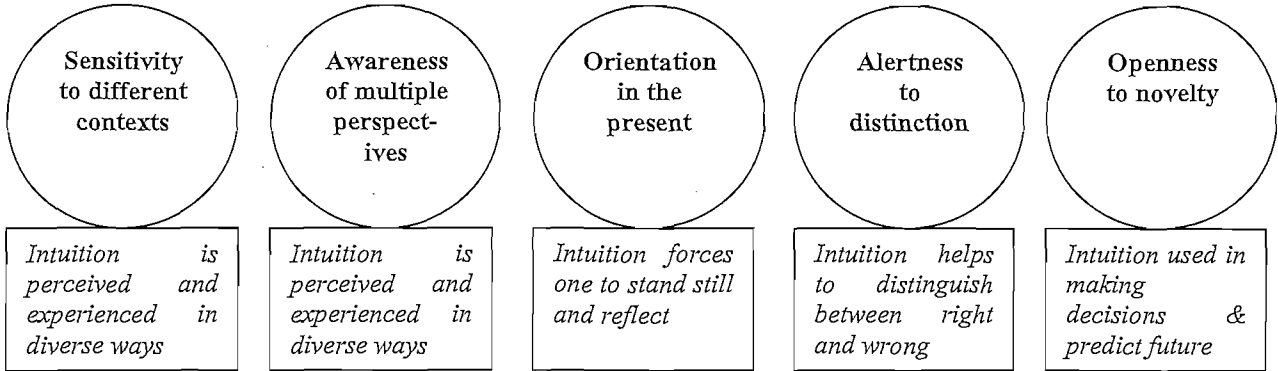
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**ATTACHMENT 1**

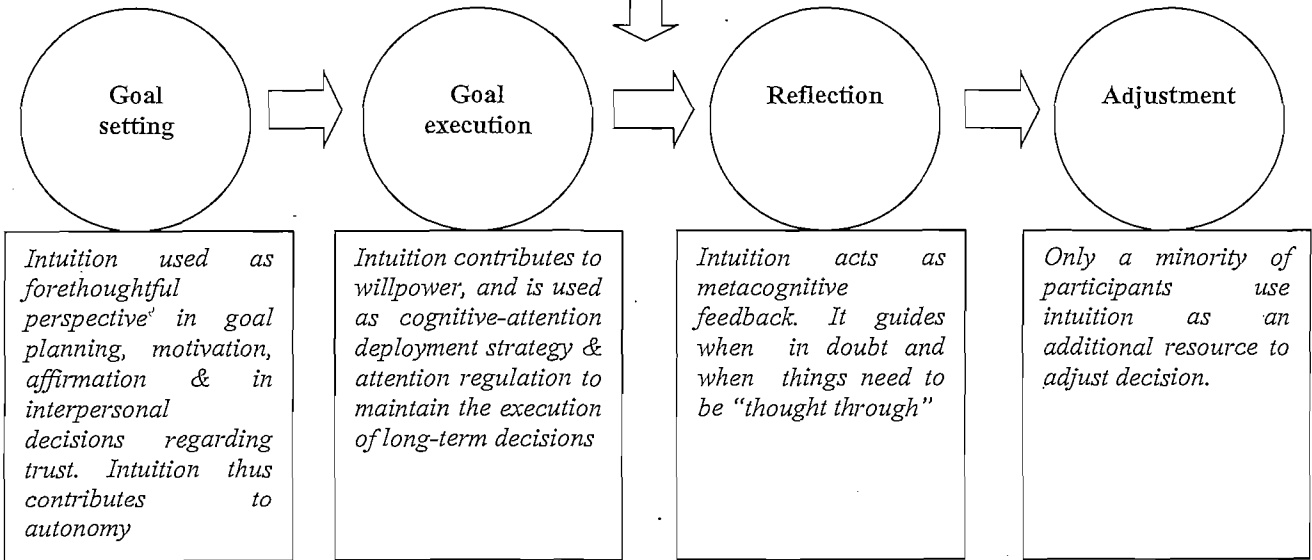
**Theme 1 -  
MINDFULNESS:  
Perception and experience**



*Intuition is perceived as an instinct, a cognition, and a feeling. The majority of participants perceive themselves to be intuitive. Intuition is experienced as guidance, emotion and spiritual.*



**Theme 2 -  
APPLICATION:  
Self-regulation**



**Figure 1.** The perception, experience and application of intuition in self-regulated decision making