

Meaningful Nature Experiences

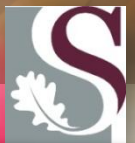
~ the missing link in education? ~

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Faculty of Education and Centre for Statistical Consultation
Stellenbosch University**

**through the
Transdisciplinary Programme in Sustainability
(TsamaHUB)**



ICCB, Auckland, 7th December 2011

Outline

**Separation
& Reconnecting**

**Research Questions
& Mixed Methods**

**Preliminary Results:
Quantitative
& Qualitative**

**Education Implications
& Discussion**



After 20 years of SCB...

*“...we see a great need for interdisciplinary efforts to tackle perhaps the **most pervasive underlying threat** of all by **reconnecting people and nature**. In our view, even if all the other building blocks of effective conservation are in place, we will not succeed unless the general public cares, and **they are unlikely to care enough if they no longer experience nature directly.**”*

~ Balmford & Cowling (2006) *Fusion or Failure: The Future of Conservation Biology*
Conservation Biology 20: 3, 692-695



Human

Nature

Convergence of Crises

- Sectoral (*External*)
- Meaning (*Internal*)
- Consciousness:

a product of our experiences
conscious awareness

Crisis Syndrome

“well-informed futility” (Swan 2010)

“sky is falling” (Hawken 1993, Miller 2005)

“need to act”

‘**Extinction of Experience**’ (Pyle 1978)

How to Cultivate:
reconnection?

conservation ethic?

“love to act”?

“...the more experiential and emotional it is, the more meaningful... [this] drives behaviour more than purely descriptive scientifically derived information.”

(Maiteny 2004)


“...part of the truth cannot be told;
it must be felt.” ~ David Orr

“Man cannot stand a meaningless life” ~ Carl Jung

Meaningful Nature Experiences

“Powerful exceptional experiences with/in nature that may evoke strong emotional bonding and/or are particularly moving, important, affective and difficult to describe.”

(adapted from Swan 2010; Morse 2011)

A close-up photograph of a praying mantis on a green leaf. The mantis is dark green with lighter green markings on its thorax and abdomen. Its front legs are raised in a prayer-like position. The background is a soft-focus green, suggesting a natural outdoor setting.

Direct Nature Experience

~ Pyle, Kellert, Kahn, Louv

Significant Life Experience

~ Tanner, Chawla, Gough

Synchronicity

~ Jung, Main, Peat, Swan

**Peak &
Profound**

~ Maslow, McDonald
DeMares, L. Smith

Mystical

~ James, Cook, Ashley

Flow

~ Csikszentmihalyi

Awakening ~ Taylor...

“It was meaningful to be able to experience the feeling that humanity is just part of “the whole” ~ ‘Consultant’

'Reality' vs 'Meaning-Making'

"Whether or not the phenomenon actually exists is irrelevant: what is important to acknowledge is that such encounters are being perceived - the interpretation exists - and therefore it may have a causal power on attitudes and behaviour towards the environment..."

Dr. Maarten Jacobs
Wageningen University



"He hungers for messages and when he ceases to seek and interpret them he will be no longer Man." ~ Loren Eiseley

Key Questions

1. What is the lived experience of MNEs actually like?
What are the common themes, contexts, characteristics?

Method: Qualitative Analysis - Phenomenology

2. Are people who have had MNEs more 'connected' with nature? Is there a (catalytic or symbiotic) relationship?
If so, can this be replicated or cultivated?

Method: Quantitative Analysis - Likert Scales / CNS

3. What insights can/should be integrated into:

- a) Education for Sustainability Curricula (tertiary level)
- b) Community-Based Nature Connection (18 – 30 yrs)

Connectedness to Nature Scale

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<i>EXAMPLE: I often go hiking with my friends on weekends</i>			√		
1. I often feel a sense of 'oneness' with the natural world around me.	<p>Social Desirability Bias? ... vs Actual Behaviour</p> <p>Flux of Connectedness?</p> <p>Cultural Compatibility? (Western-orientation)</p>				
2. I think of the natural world as a community to which I belong.					
3. I recognize and appreciate the intelligence of other living organisms.					
4. I often feel disconnected from nature.					
5. When I think of my life, I imagine myself to be part of a larger cyclical process of living					
6. I often feel a kinship with animals and plants (i.e. feeling a sense of family)					
7. I feel as though I belong to the earth as equally as it belongs to me.					
8. I have a deep understanding of how my actions affect the natural world.					
9. I often feel part of the web of life.					

Quantitative: Significant Findings (1)

Online & Street-based Questionnaires

Variable 1	Variable 2	Spearman	p-value	n
- MNE with no Animal	CNS Score	0.31	<0.01	173
- MNE with an Animal	CNS Score	0.39	<0.01	181
- MNE Frequency (combined)	CNS Score	0.39	<0.01	172
- Contact with Nature (hr/wk)	CNS Score	0.37	<0.01	56
- Contact with Nature (hr/wk)	MNE Frequency	0.44	<0.01	56
- Spiritual/Religious Practice	CNS Score	0.28	<0.01	136
- Spiritual/Religious Practice	MNE Frequency	0.30	<0.01	129

**ANOVA: No Correlations in CNS Score & MNE Frequency
due to Gender differences**

“The weeks since [my Vision Quest]...have been remarkable... although I’ve always been passionate about nature, I’ve never felt this level of connectedness before, enjoying a number of exciting encounters.” ~Geoff D (Odyssey Mag.)

Quantitative: Significant Findings (2)

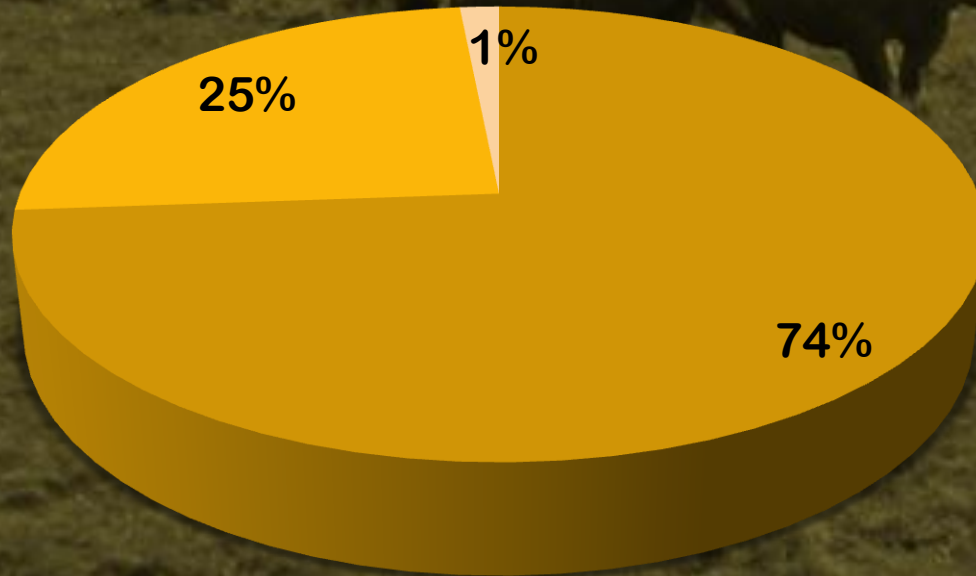
Street-based Questionnaires Only

Variable 1	Variable 2	Spearman	p-value	n
- MNE with no Animal	CNS Score	0.37	<0.01	110
- MNE with an Animal	CNS Score	0.45	<0.01	118
- MNE Frequency (combined)	CNS Score	0.45	<0.01	109
- Childhood Contact w/Nature	CNS Score	0.38	<0.01	120
- Childhood Contact w/Nature	MNE Frequency	0.56	<0.01	113
- Spiritual/Religious Practice	CNS Score	0.28	<0.01	120
- Spiritual/Religious Practice	MNE Frequency	0.34	<0.01	113

**ANOVA: No Correlations in CNS Score & MNE Frequency
due to Gender differences**

“The weeks since [my Vision Quest]...have been remarkable... although I’ve always been passionate about nature, I’ve never felt this level of connectedness before, enjoying a number of exciting encounters.” ~Geoff D (Odyssey Mag.)

Influence on Behaviour



- Strongly Disagree
- Disagree
- Neutral

n = 65
(Online)

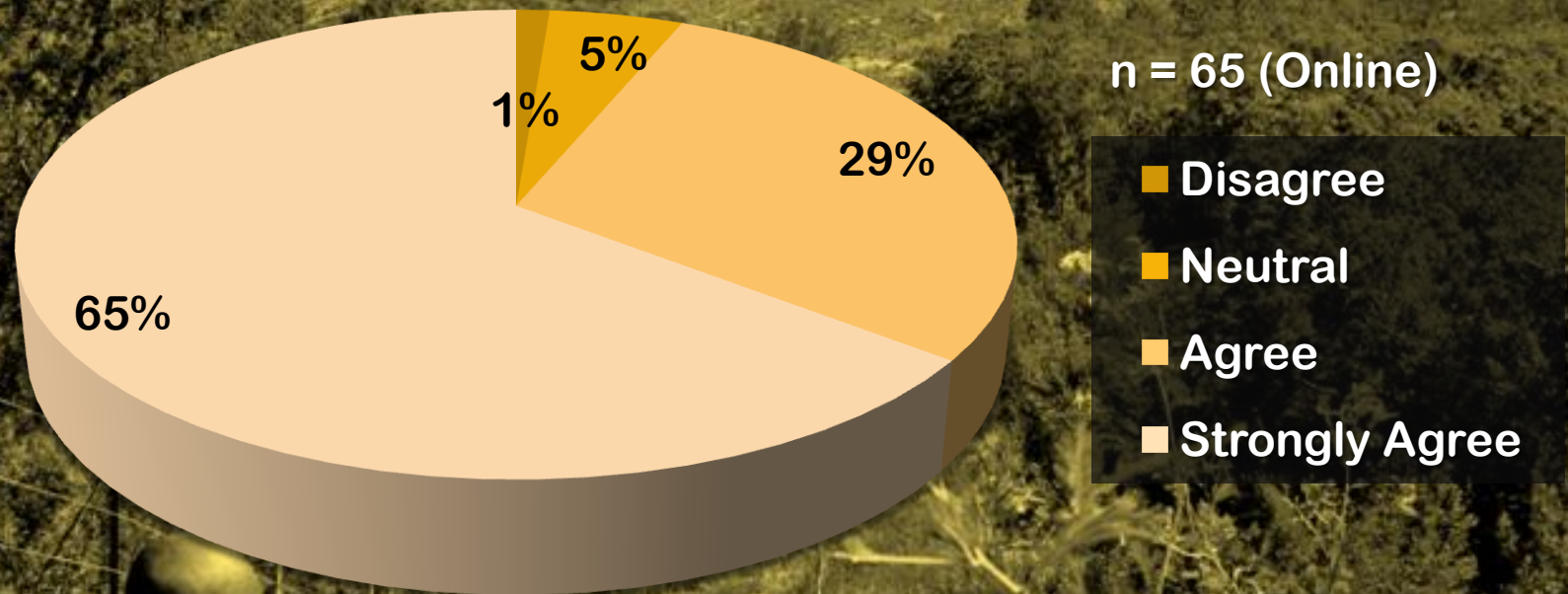
“The profound and meaningful nature encounters I have experienced in my life have had little or no influence on my current behaviour & actions toward nature & the environment.”

Photo: N. Daamen

“It was this and many other experiences that have fuelled my passion for conservation” ~ Justine

Influence on Life Outlook

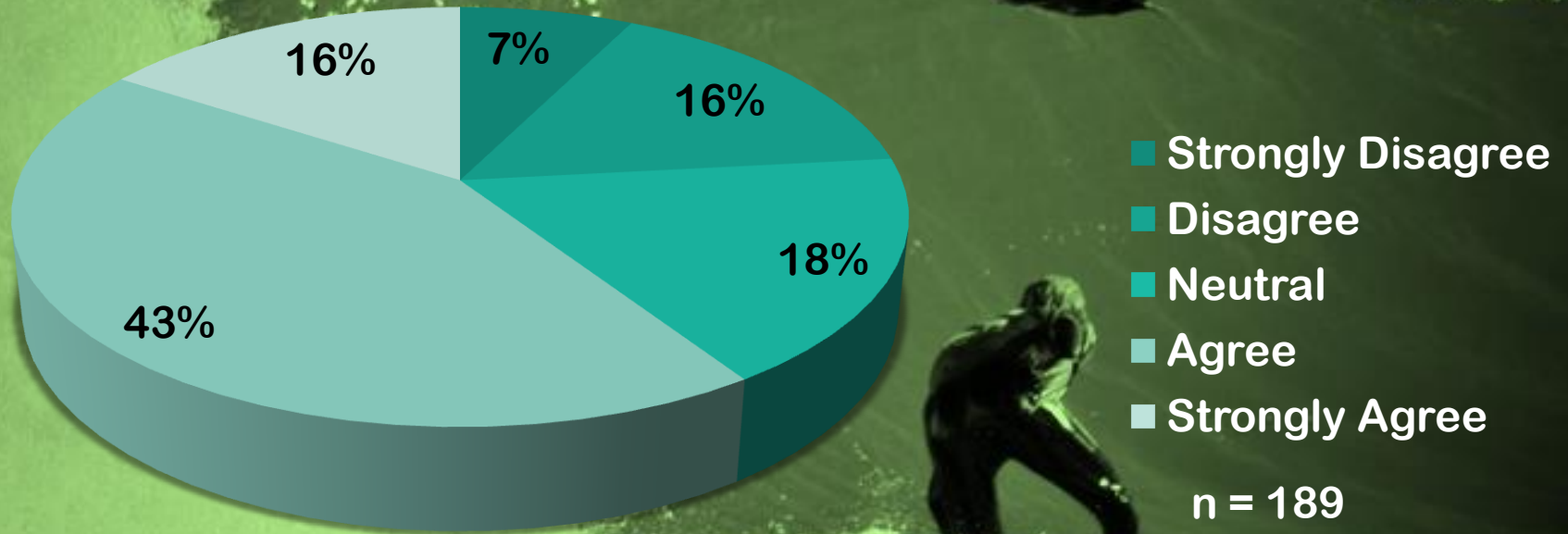
"Something changed in me that night. I had experienced something magical, something perfect, something powerful that set me on a different path." ~ Mel



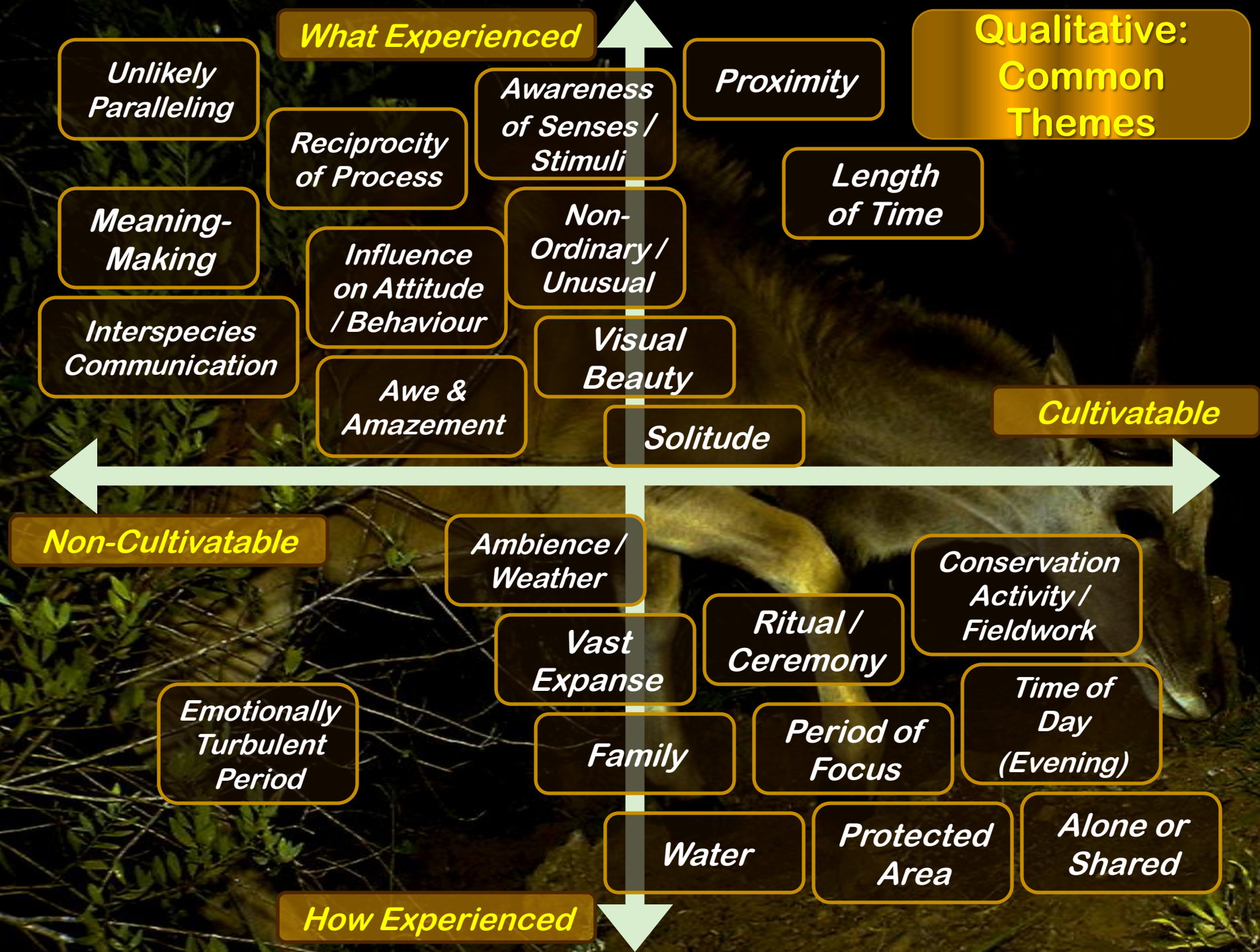
"My meaningful nature experiences have heavily influenced, changed or transformed my outlook on life."

"That trail changed my life, and I think this was the pivotal moment." ~ Sally

And some surprises...

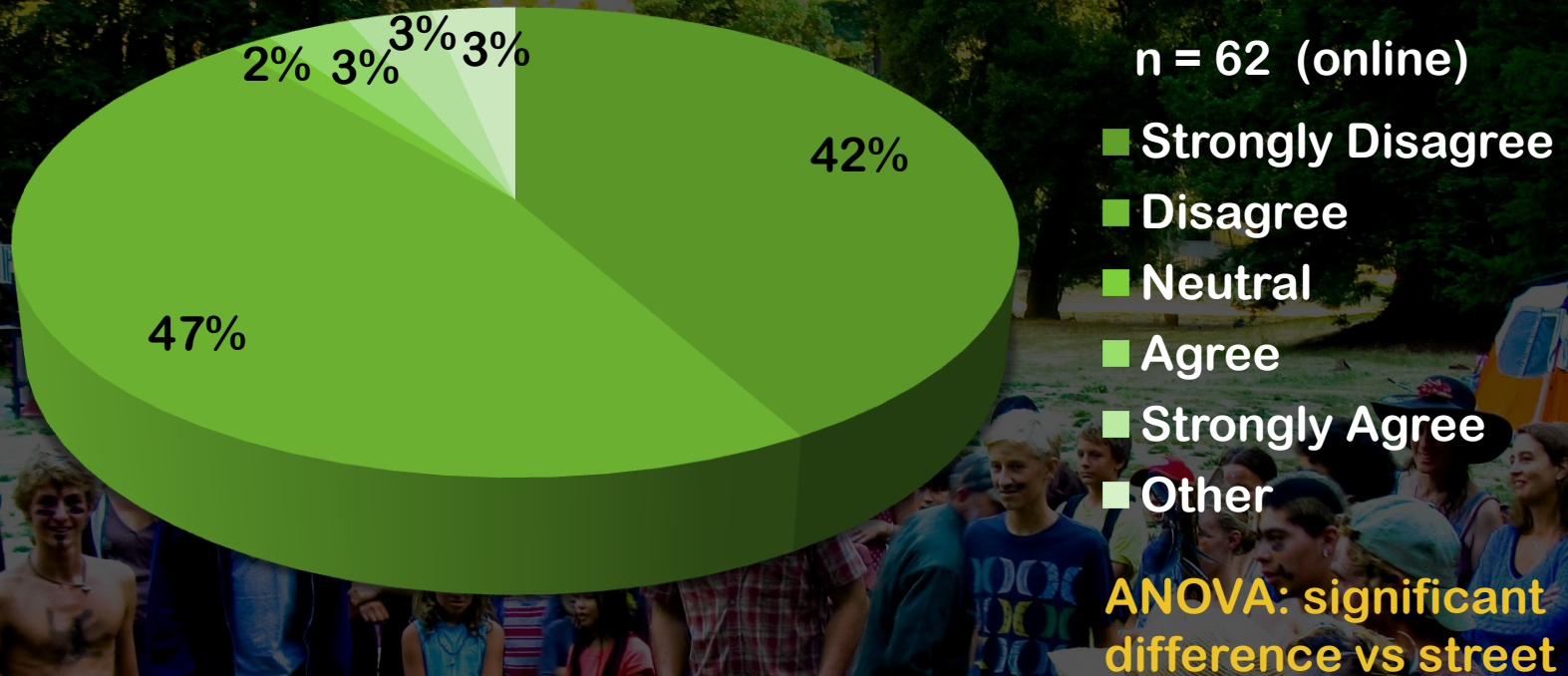


“I often experience coincidental moments when something I am thinking is suddenly linked to / reflected / mirrored in the natural environment around me.”



Adequacy of Education

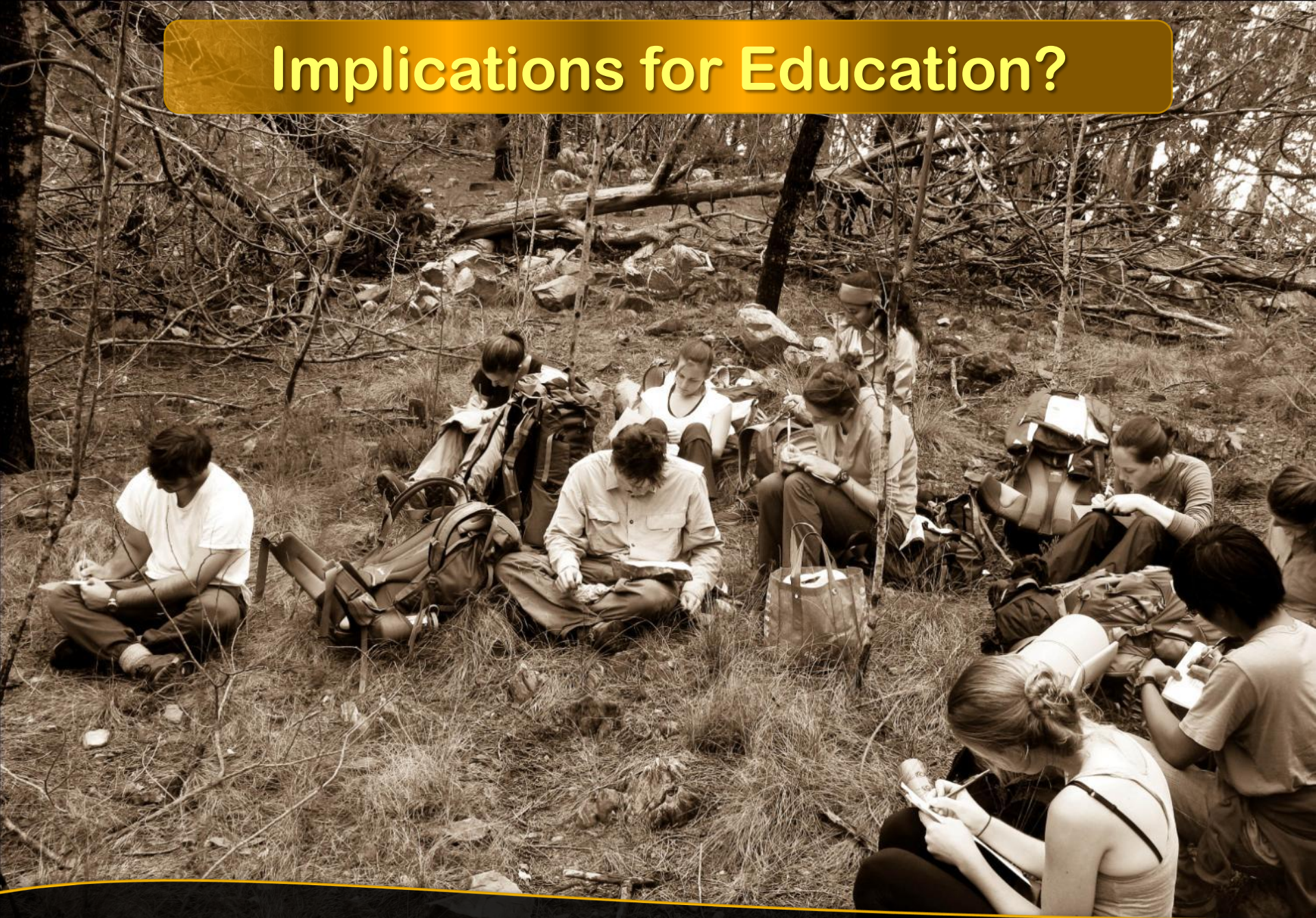
“For me an experience is more profound the more you understand of it.” ~ James



**“Our modern education system adequately prepares us to understand and learn from meaningful nature experiences”
(such as profound encounters with wildlife)**

“Take them out there, to experience their own size and vulnerability in wilderness areas.” ~ b4t
“...experiencing nature not just thinking about it and analysing it.” ~ Ecomimi

Implications for Education?

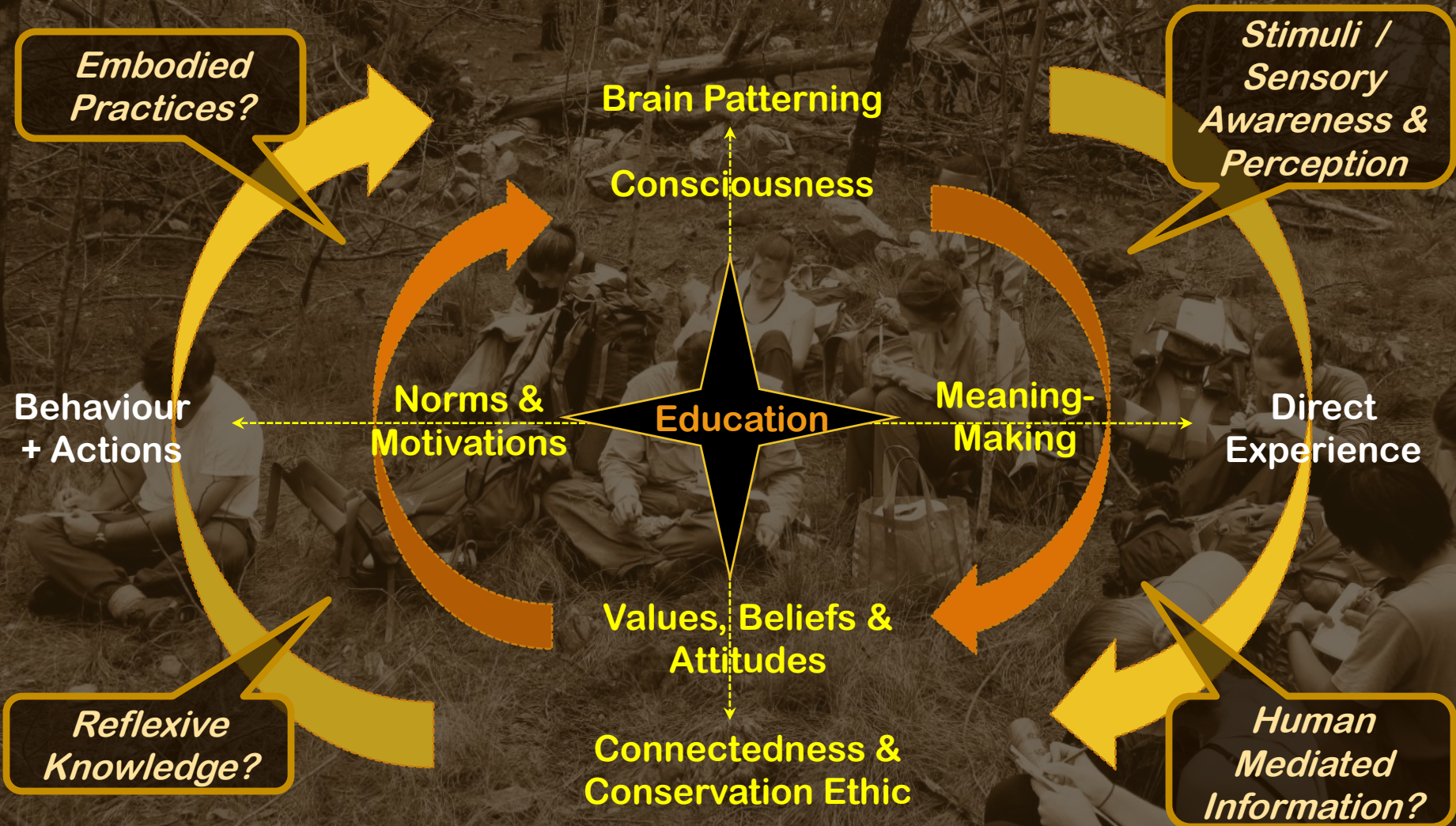


"Education is the ability to perceive the hidden connections between phenomena" ~ Vaclav Hevel

Balancing Educational Aims

- From sitting in the comfort zone to tackling the woolly stuff
- From instrumentalism (policy) to engagement (personal) (Wals et al 2008)
- From information / knowledge change to consciousness change
[head (cognitive) heart (emotional) hands (skills)]

Linking the Missing Links



Loosely adapted from Young et al 2010

"Education is the ability to perceive the hidden connections between phenomena" ~Vaclav Hevel

Tackling the Woolly Stuff

“And I do think that the next - if we're going to be successful in this whole sort of conservation thing - then the next major change has to be a consciousness change rather than an information change. We need to better understand our place in the world...we really need to start including this [type of research] in the conservation programme. We can't just keep doing what we know we can do. We have to start also tackling those things as conservationists. Tackling those things that we don't know how to deal with. We've got to take a first step and to start doing it. At the moment it is just too convenient to sort of put it in a field of - for want of a better word – ‘extreme people’, New Age or whatever. And the danger of that is you tend to label and say, ‘aw, check, it's them’ - it is all those weird folk smoking weird stuff and looking at crystals and sh*t like that. But in actual fact science and conservation needs to start tackling these sort of issues.”

~ Dr. Large Mammal Ecologist

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Questions?

Poster Presentation (192)

Meaningful Nature Experiences A necessary catalyst for reconnecting with biodiversity?

M.J. Zylstra, A.T. Knight, K.J. Esler, L. Le Grange, M. Kidd
Stellenbosch University, South Africa

eyes4earth.org is a transdisciplinary initiative encouraging shared learning about the benefits of reconnecting with nature through meaningful experience. It explores: 1. How meaningful nature experiences (MNE) reconnect humans with nature; 2. How ecological change (e.g. invasive species) affects the experience of nature; and 3. How insights from MNE practically inform education for sustainability. Public awareness is being stimulated through science, art and action.

THE SCIENCE & EDUCATION

Do meaningful nature experiences (MNEs)* reconnect us?

Many sources speak of the need for humans to reconnect with nature. But few have articulated what that process looks and feels like, what we are aiming for or what type of transformative education is needed.

Anecdotal evidence and autobiographical accounts suggest that a profound experience with nature may sufficiently shift perception to change attitudes, behaviour and one's 'connectedness' to the world. MNEs are moving, difficult to describe and may be termed as, e.g. peak, flow, synchronicity, mystical, awakening, or 'aha' experiences.

Online and street surveys found that people who have more frequently had what they consider to be a meaningful nature experience score significantly higher ($n = 172$; spearman = 0.39; p -value = <0.01) on the 'connectedness to nature scale' (developed by Mayer & Frantz, 2004).

"I was on a secluded beach, when I became acutely aware of repeated patterns in the sand along the edge of the water. There was a distinctly rhythmic quality in the way the sand dried out with each wave that retreated back into the ocean. It was accompanied by a rhythmic fluctuating sound of the ocean, which was echoed by the cliffs along the beach. It felt as if the whole beach was pulsating and as if all the separate elements, the water, the sand and cliffs, were all part of one entity. I had never before or since had the same experience, even though this is a place I visit once a year. It feels as if I had a glimpse of how alive the landscape is." - aka 'Monkey'

From online respondents ($n = 69$) who submitted an account of their meaningful nature experiences, 99% disagreed (74% strongly) with the statement that "The profound and meaningful nature encounter I have experienced in my life have had little or no influence on my current behaviour and actions toward nature and the environment."

It is unlikely these experiences can be manufactured; but maybe they can be cultivated. We found significant correlation between people who engage in self-awakening / spiritual / religious practice with both the frequency of meaningful nature experiences ($n = 129$; spearman = 0.30; p -value = <0.01) as well as their overall scoring on the connectedness to nature scale ($n = 158$; spearman = 0.25; p -value = <0.01).

Qualitative analysis of experiences reveals common themes, such as feelings of awe, amazement, aliveness, connection, oneness, humility. MNEs may happen during emotionally turbulent periods or times of intense focus. They are often spontaneous non-ordinary encounters in remote (protected) areas but can also occur in suburbs. With animals, the length of time and proximity of the encounter are often cited. A perceived reciprocity through eye-contact, or a sense of desired intercommunication from the animal is noted. Paralleling between one's inner state with outer events adds layers of meaning.

Such results have implications for conservation education, particularly at tertiary level. How should we re-think and re-design curricula?

This research is being led by Matthew Zylstra and based at Stellenbosch University (Department of Conservation Ecology & Estuaries with the Faculty of Education) and housed in TransdiscUS's Transdisciplinary Doctoral Programme in Sustainability. The research is funded by the DST-NRF Centre for Invasion Biology (CIB) and supported by EarthCollective, RESILIENCE, Living Lands, ECPA, Terra & Kewchuan Foundation. Equipment provided by IDEAWILD and Canon Australia Environmental Grant 2007/08.

THE ACTION & AWARENESS

Where is the grassroots focus?

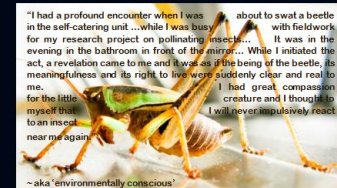
Knowledge generated through this research is supporting co-learning with the Baviaanskloof Nature Awareness Group: a group of young enthusiasts with a passion to place nature back into the hearts of their communities. Together we are exploring what meaningful reconnection is really about as well as how alien invasive species may affect us. This is process of improving our eco-literacy and striving to gain knowledge, skills and experience which can eventually be shared with schools and communities across the Baviaanskloof Mega-Reserve, South Africa. Our own meaningful experiences have motivated and inspired us...



THE ART & OUTREACH

How are insights being shared?

eyes4earth.org acts as online portal & disseminates via: Weblog, GoogleMaps, YouTube, Facebook, Twitter.



Work is also currently underway to creatively mix recorded stories of meaningful nature experiences as audio material, i.e. music tracks.

eyes4earth.org
"reconnecting with nature through meaningful experiences"



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