The validation of a measure of organisational energy in the South African context

Authors:
Lynne Derman[1]
Nicolene Barkhuizen[2]
Karel Stanz[2]

Affiliations:
[1]Department of Industrial Psychology and People Management, University of Johannesburg, South Africa

[2]Department of Human Resource Management, University of Pretoria, South Africa

Correspondence to:
Nicolene Barkhuizen

Email:
nicolene.barkhuizen@up.ac.za

Postal address:
Department of Human Resource Management, University of Pretoria, Lynnwood Road, Hillcrest, Pretoria 0002

Orientation: Previous research has highlighted the need to examine the relationship between people and organisations. This perspective facilitates the study of organisational energy.

Research purpose: The purpose of this research was to validate a measure of organisational energy in the South African context and to investigate whether there are differences in organisational energy as perceived by employees based on their demographic characteristics and lifestyle variables.

Motivation for the study: Managing energy in organisations is important as it drives motivation, powers teamwork, fosters creativity and gives organisations a competitive edge (Schiuma, Mason & Kennerley, 2007). Limited empirical research currently exists on the phenomenon of energy in organisations.

Research design/approach method: The researchers used a cross-sectional survey design, with a convenience sample ($N = 520$) of employees in a South African financial institution. The researchers administered the EnergyScapes Profile.

Main findings: Exploratory factor analysis resulted in a one-factor structure for the EnergyScapes Profile. The scale, labelled organisational energy, showed acceptable internal consistency. The researchers found statistically significant differences in the organisational energy levels of employees based on age, tenure, geographical region, relaxation, hypertension and diabetes, depression or psychosis.

Practical/managerial implications: The research provides valuable insight for practicing managers about understanding the concept of organisational energy and encourages leaders to question the energy of their employees.

Contribution/value-add: The insight the researchers gained by studying the concept of organisational energy contributed in a unique way and showed the importance of considering organisations as dynamic and interactive with the people that work for them.

Introduction

Many organisations that are struggling to keep up with the unrelenting pace of change and extreme competitive pressure seek to adopt the latest techniques or tools in order to improve their bottom lines. We may need to change the way we view individuals and organisations and recognise the dynamic, never-ending pattern of interaction. Integrating phenomena at individual and organisational levels moves the analysis of organisations away from static, structural qualities towards a more dynamic process (Pettigrew & Fenton, 2000). This perspective facilitates the study of organisational energy.

Energy is a difficult concept to define. However, Kinjerski and Skrypnek (2004, p. 29) offer that 'the phenomena most difficult to articulate are those that may be most critical for understanding'. Individual energy, especially that of leaders, influences organisational energy whilst the energy state of organisations affects the energy of individuals (Bruch & Ghoshal, 2003). Organisations benefit from the positive dynamics of an energised workforce when employees work well together, relationships are supportive, inspiring and when employees share information freely (Cartwright & Holmes, 2006). Managing energy is important as it promotes motivation and powers teamwork, fosters creativity and gives organisations a competitive edge (Schiuma *et al.*, 2007). Without high levels of energy, companies cannot improve overall productivity, grow quickly or create major innovations (Bruch & Ghoshal, 2003).

Therefore, it is important to develop working environments that are humane, challenging and rewarding and where people feel passionate about, and energised by, their work. As Biberman,

Whitty and Robbins (1999, p. 243) noted, organisations 'must discover the inner power to balance their energies and to transform themselves into more humane systems'. Porth, McCall and Bausch (1999) maintain that organisations need a fundamentally different approach to managing employees than the centralised, control-orientated approach of Frederick Taylor and that the new role of top managers is to unleash the human spirit that makes initiative, creativity, and entrepreneurship possible. Therefore, it depends on establishing an organisational climate that allows the human capacity for innovation and creativity to flourish.

The concept of energy in this context becomes a useful tool for studying organisations. By studying energy and the flow of energy, Tosey (1994) suggests that we will gain insight into our energies and the energies of our organisations.

The purpose of this research is to validate a measure of organisational energy in the South African context and to determine whether there are significant differences between demographic groups and lifestyle variables in organisational energy.

Organisational energy is an emerging topic in both academic and practitioner literature. It has become imperative to study it as organisations and individuals benefit from an energised work force (see Bruch & Ghoshal, 2003; Bruch, Menges & Cole, 2009; Bruch, Vogel & Raes, 2010; Cole, Bruch & Vogel, 2005; Cross, Baker & Parker, 2003; Dutton, 2003; Linder, Cross & Parker, 2006; Schiuma *et al.*, 2007; Smith & Tosey, 1999; Tosey & Smith, 1999; Stanton Marris, 2002; Tosey, 1994; Tosey & Llewellyn, 2002).

For the purposes of this research, we define organisational energy as human consciousness and, at the collective level, as the collective consciousness of the organisations' members (Tosey, 1994; Tosey & Lewellyn, 2002). With the limited research currently available on organisational energy, this research makes an important empirical contribution to applying a measurement of energy and determining the energy levels of organisations.

The next section of the article highlights some of the limited literature available on organisational energy. Thereafter, it will discuss the research approach and method. The results of the research follow. The article concludes with a discussion of the research results and recommendations for further research.

Literature review
A theoretical perspective on organisational energy

To date, there is no clear theoretical perspective on organisational energy. We can find possible explanations for organisational energy in chaos theory, systems theory, field theory or complexity theory.

Chaos theory, systems theory and the 'new physics' have begun to inform management theory and practice (Jaworski,

1996; Senge, 1990; Wheatley, 1992). Terms like dissipative structures, synchronicity, self-organising systems, connectedness and wholeness are becoming commonplace in management thought and practice. Bohm (1980) uses these ideas in his description of physical reality as an 'unbroken, seamless whole' where our perception of separateness is merely a habit of thought. In other words, modern physics says we are part of a larger whole, interconnected with all life. However, we experience ourselves as separate from others and from nature itself (Capra, 1996). Therefore, the nature of 'objective reality' is not the crucial issue – what matters most is our experience of reality (Neal, Bergmann Lichtenstein & Banner, 1999). Wheatley (quoted in Smith & Tosey, 1999, p. 74) expresses the idea that 'when meaning is in place in an organisation, employees can be trusted to move freely and drawn in many directions by their energy and creativity'.

The approach that Tosey (1994) and Tosey and Smith (1999) use is based on complexity and field theories. These are concepts that we can find in quantum physics, or 'new science'. Tosey and Smith (1999) regard energy 'as a property of the field'. It is something that the relationships that exist between people and their contexts, like the organisations in which people work, create and represent (Tosey & Smith, 1999).

The concept of organisational energy

In order to grasp the meaning of organisational energy fully, one needs to start with the concept of energy. According to Bruch and Vogel (2005), Adams (1984) was one of the first authors to discuss energy in the organisational context. Adams (cited in Bruch & Vogel, 2005) defines energy as 'the potential for action or accomplishment of work'. In addition, Cartwright and Holmes (2006) view energy as a type of positive arousal which people can experience as emotion – short responses to specific events, or moods – or longer lasting affective states that need not be a response to a specific event. Therefore, energy is a behavioural driver that creates a reinforcing loop with the motivating force and organisational performance (Schiuma *et al.*, 2007).

Tosey (1994) points out that our day-to-day experiences give us valuable feedback on the systems in which we participate. Therefore, we need to relearn how to use their resources. However, we still depend largely on Eastern thinking to explain concepts like energy systems (*chakras*).

For Zukov (1979), Dang (2005) and Kirshenbaum (2003, 2005), energy flows into the body from the universe and leaves the body again via the seven *chakras*. *Chakra* is a Sanskrit work for 'spinning wheel of energy' (Henry, 2004; Tosey, 1994). The *chakras* 'are vital points that stimulate the nervous system and control or maintain the balance of the principal organs to which they are linked within the body' (Dang, 2005, p. 2).

In his work, Tosey (1994) has found *chakras* to be useful screens upon which to project contemporary questions and concerns about energy. He ultimately designed a framework

from which to study organisational energy based on the concept of *chakras*. This study uses the same framework.

Tosey and Llewellyn (2002) developed an energies model that describes organisational energy as having seven energies. These are inspiration, integration, meaning, community, control, activity and existence. The energies model helps to 'create a language through which participants can identify and discuss their 'self experience', and can (as far as they choose to) inquire into their organisation's energies' (Tosey & Llewellyn, 2002, p. 54). The model is also a way of guiding the exploration of individuals' experience of organisations, not a representation of what organisations are 'really' like. Each organisation manifests the various energies in different ways in different contexts that give organisations their own 'energy signature' (Tosey & Llewellyn, 2002). Blockages of energy in any one of the seven dimensions can give useful information to managers on the 'health' of organisations.

This article presents a brief description of the dimensions of organisational energy, which Tosey and Llewellyn (2002) identified, next.

The energy of inspiration

The energy of inspiration has to do with the alignment of organisations to a higher purpose. It requires inspiration and vision from the organisations' leaders (Bruch & Ghoshal, 2003).

Sadri and Lees (2002) hold that mission statements create positive corporate cultures. However, clear corporate visions are also necessary. These authors believe that 'corporate visions are most effective when clearly communicated by top organisational leaders who exhibit strong values and have dynamic, charismatic personalities' (Sadri & Lees, 2002, p. 854).

Too often, corporate visions are unclear and there is no buy-in from employees. Organisations cannot dictate truly shared visions. They can only emerge from coherent processes of reflection and conversation (Senge, Scharmer, Jaworski & Flowers, 2005). Richards (2006) concludes that 'the failure to manage energy shifts in a conscious and deliberate way is the primary reason that organisational visions and mission statements end up dry and lifeless'.

The energy of integration

The energy of integration refers to a sense of holism that includes many opposing concepts like art and wisdom. Intuition has a role to play and so does ecology. There is synergy and strategic insight, integration of differences and diversity. Integrity and wisdom are the ideal qualities of this energy (Tosey & Llewellyn, 2002).

The energy of integration and the energy of inspiration overlap. Organisations that use their brainpower fully, according to Biberman *et al*. (1999, p. 245) will use a balance of rational (left hemisphere) and intuitive (right hemisphere)

thinking and problem solving whilst doing their strategic planning. Consequently, they often find creative solutions to problems.

The need for integration may be because of global competition and mergers that force organisations to expand geographically, thereby exposing them to various nationalities and cultures. Business has come to realise that organisations can gain significant competitive advantage that can 'effectively motivate and influence the behaviour of their people' (Souza-Poza, Nystrom & Wiebe, 2001, p. 744).

It has led to a need to integrate organisations with diverse cultures. However, in reality, dealing with diversity often brings about conflict. Organisations can achieve integration between their subcultures and, in turn, adapt to change if employees are willing to open up and share with each other (Ali, Pascoe & Warne, 2002). Biberman *et al*. (1999) note that there is a trend in business philosophy to strive for integration, wholeness and balance, and that there is a similar trend in economics and public policy. This applies to 'organisations and systems undergoing constant change but also to global society seeking new paradigms for balance and change' (Biberman *et al*., 1999, p. 245). This striving for balance and change needs the qualities of integration, which are integrity and wisdom.

The energy of meaning

The energy of meaning deals with values and beliefs, communicating with others and expressing oneself. The ideal qualities of this energy are truth and honesty. 'Organisational culture approaches would be concerned with exploring "truths", beliefs, values, metaphors and symbols – the ways in which meaning and significance are created and maintained' (Tosey, 1994, p. 71). The changes that have happened in organisational life recently – like mergers and acquisitions, downscaling and re-engineering – have left employees increasingly frustrated and disenchanted with work. Younger workers are questioning the nature and meaning of work increasingly. People are seeking a greater sense of meaning and purpose in their extended working lives (Cartwright & Holmes, 2006, p. 200). These authors believe that one of the biggest factors prompting career change is the 'quest for meaningful work which provides a greater fit with personal values' (Cartwright & Holmes, 2006, p. 204).

King and Nicol (1999, p. 234) believe that people find themselves in 'a world of permanent white water which means that they are frequently experiencing a lack of meaning in their lives and an attendant sense of spiritual desolation' more than ever. However, according to Small (2006), establishing meaning and purpose at a personal level in a person's work situation may counteract the negative aspects of corporate life. Biberman and Whitty (1997, p. 135) maintain that, in the postmodern future, humankind's eternal search for meaning will require reinventing work and the workplace and a renewed sense of the deepest

intentions behind human activity. Cooperation may be good for people's sense of a shared destiny and for the future of organisations.

The energy of community

An organisation or institution is a group of people acting together towards a common purpose, a system in which people cooperate to reach organisational ends (Koster & Sanders, 2006; Weymes, 2005). People prefer to work in environments that promote harmony and goodwill (Small, 2006). 'When there is no community, trust and respect are hard to maintain and performance is even more difficult to reinforce', (Porth *et al.*, 1999, p. 211). It is unfortunate that, in the modern paradigm, people tend to mistrust others, use win-lose tactics when dealing with conflict situations and use various power and political tactics to secure their own power bases (Biberman & Whitty, 1997, p. 133).

Crane, Dillard and Hamilton (2003, p. 183) did a study on the benefits of participative management. They found that employees generally prefer this approach. Specific benefits that employees reported included:

- an open, participative environment that is rich with communication
- being part of the whole
- the freedom to share new ideas
- empowerment
- camaraderie rather than solidarity.

When there is trust in organisations, there is commitment from the staff and support from the external community. Shared values are the basis of trust. Value systems lie at the heart of human behaviour that systems and processes, the traditional operating standards for many organisations, cannot control (Weymes, 2005, p. 143). This author also notes that building trust and integrity in organisations seems to challenge today's, managers.

The energy of control

The energy of control has to do with the experience of clarity. It is associated with the balance of order and chaos, structure, processes, systems, form, design, logic, guidance and confidence. The ideal quality of this energy is human will, or consciousness. It shapes destiny and aesthetic order or design (Tosey & Llewellyn, 2002). Whilst we can easily equate energies of existence and activity with the concept of energy, it is necessary to look at other:

> qualities of consciousness, starting with the emergence of conscious intent; control, in a wide sense, since there are many ways in which thought creates forms, designs, plans and rules which structure events – clarity and direction which guide the energy of activity.
>
> (Tosey, 1994, p. 69)

The history of traditional management and organisation theory has been, for the most part, about controlling workers and aligning their interests to those of managers. The history of management practices, ranging from Taylorism and its various outgrowths, has been about controlling the non-rational aspects of organisational behaviour through coercive practices like increased managerial supervision (Ogbor, 2001, p. 593).

People still believe that 'organisations survive, prosper and deliver by exercising "command and control", the liberal use of "power" and "authority", and supporting the idea of the "chain of command"' (Small, 2006, p. 589). However, when organisations limit personal freedom they control behaviour. The result is that they limit the ability to innovate. Research has found that creativity is a key driver for organisations to achieve competitive advantage (Weymes, 2005). Weymes (2005) further maintains that creativity is also a key to the energy of activity.

However, the energy of control is not only about rationality and rules, nor is there an assumption that control in itself is a 'good thing'. In essence, it is to do with managing the balance of order and chaos as well as how control is manifested and experienced in relation to this (Tosey, 1994, p. 70).

The role of managers and leaders in a chaotic world is to shape organisations through concepts rather than through elaborate rules and structures (Wheately, cited in Tosey & Llewellyn, 2002). The problem of changing from this perspective is not how to bring about change, 'but how to prevent the dissipative tendency from being blocked – which we suggest people tend to do through needs for clarity, control, avoidance of embarrassment, and so on' (Tosey & Llewellyn, 2002, p. 55). Giving employees a greater sense of control over their own destinies motivates employees.

Garg and Rastogi (2006) did research on motivating employees through job design. They report that 'job designs that provide for high levels of employee control also provide increased opportunities for the development and exercise of skill … job satisfaction has been observed [and] … leads to high productivity' (Garg & Rastogi, 2006, p. 574). Therefore, control should be more about creating environments in which employees can contribute. This requires balancing the need for systems and procedures with the need to create environments that encourage creativity.

The energy of activity

The energy of activity is expressed as excitation. It is associated with doing, movement, entrepreneurship, generativity, emotional 'charge', achievement and effectiveness. It has to do with unblocking, mobilising and releasing energy. The ideal qualities associated with this energy are creation and productivity (Tosey & Llewellyn, 2002). Martins and Terblanche (2003, p. 64) did research on creativity and innovation and found that 'creativity and innovation have a role to play in [the] change process for survival'.

Organisational culture also seems to influence the degree to which organisations stimulate creativity and innovation. 'Creativity is unleashed when individuals are provided with the opportunity to express their individual freedom, when they feel their actions make a difference' (Weymes, 2005,

p. 142). When organisations extend themselves to include society and the environment, people become inspired to share the dreams of the organisations. The dilemma facing organisations today is to create environments where trust, creativity and innovation flourish yet meet the performance criteria the stakeholders want. The challenge is to find a philosophy that unites the two extremities of the dilemma (Weymes, 2005).

The energy of existence

This energy has to do with managing transition. It deals with resources and the 'bottom line' that indicates organisations' ability to continue to exist. 'Change is often framed or perceived in terms of crises or transitions, such as the growing stages of organisations or even directly as birth and death' (Tosey, 1994, p. 68). Although people usually experience transitions as traumatic and unsafe, they also thrive on the grounding, earthing energy of contact with these 'life-death' issues. In organisations, this energy also relates to money as the 'bottom line' that determines which programmes and projects they should support and which they should cut (Tosey, 1994, p. 68).

The successful business of the future 'is one that continuously innovates, i.e. is able to demonstrate flexibility and to pro-actively anticipate business opportunities' (De Jong, 2006, p. 5). Organisational change becomes a shared responsibility. As mentioned by Porth *et al*. (1999, p. 213), 'Innovation and change require employee participation and involvement'. Organisations need the energies of inspiration and integration to achieve this.

In summary, the seven energies are not mutually exclusive. They ebb and flow. Therefore, they affect each other. However, each level of energy has a distinctive characteristic that allows us to identify each one. All energies exist in organisations at any given time. The flow and blockages of energy are important. Different organisations experience the seven energies differently and even the same organisation will experience them differently at different times.

Other perspectives on organisational energy

Stanton Marris, an organisational consultant in the United Kingdom (UK), defines organisational energy as 'the extent to which an organisation has mobilised the full available effort of its people in pursuit of its goals' (Stanton Marris, 2002, p. 3). Stanton Marris describes energy as having two measurable dimensions: quantum and direction. They have four sources of energy, each with rational and emotional aspects, which they identify as connection, content, context and climate.

'Connection' is the extent to which people relate the work they do and their value to the purpose of organisations. 'Content' relates to the actual work people do, whether they find it stimulating and whether it gives a sense of achievement. 'Context' is the extent to which people experience work environments as supportive and enabling. 'Climate' refers

to the atmosphere of organisations that encourage people to give of their best (Stanton Marris, 2002).

There is some overlap between how the models of Stanton Marris (2002) and those of Tosey and Lewellyn (2002) use the concepts.

Stanton Marris' concept of 'connection' overlaps with Tosey's concept of 'inspiration' because it relates to the objectives of organisations. This source of energy also incorporates what Tosey calls 'meaning' as it relates to employees' need to find meaning in their jobs. Content relates to Tosey's idea of 'activity' because it relates to achievement. The sources of energy called 'context' and 'climate' both relate to Tosey's idea of 'community' as the degree to which environments are supportive and enabling.

Bruch and Ghoshal (2003) define organisational energy as related, but not identical, to the sum of the energy of people. The authors further suggest that organisations can assess their organisational energy based on intensity and quality.

Intensity refers to the strength of organisational energy (low to high) whereas quality represents the effect of energy on the task (negative to positive). The interaction between intensity and quality determines organisations' energy states and can fall into four zones. These are comfort, resignation, aggression and passion (Bruch & Ghoshal, 2003).

Companies in the comfort or resignation zone show low levels of attention, emotion and activity, suffer from conflicting priorities and lack of cooperation. The passion zone is ideal where companies thrive on strong positive emotions. Employees direct their enthusiasm and excitement towards shared organisational priorities (Bruch & Ghoshal, 2003).

Cole *et al*. (2005) introduced the concept of productive organisational energy. Productive organisational energy is a multi-dimensional phenomenon that reflects employees' joint experiences of positive affect (emotional energy), their shared cognitive activation in the pursuit of common goals (cognitive energy) and their collective efforts to achieve these goals (behavioural energy).

For Schiuma *et al*. (2007, p. 71), organisational energy is related to the sum of the energies of all employees, plus the sum of the social network energy created within and between teams, and an emergent energy that is the result of synergetic integrating and combining all other forms of energy. These authors developed 'The Energy Performance Chain' for holistically linking the sources of energy (people and groups) and the sources of energy dynamics (individual behaviours, social interactions and organisational infrastructure) to business performance.

Closely related to this framework, Bruch *et al*. (in press) found that productive organisational energy mediated the relationship between strategic leadership and performance.

In addition, Bruch *et al*. (2009) found that productive organisational energy mediated the relationship between high performance work systems and good performance.

Measuring organisational energy

The EnergyScapes Profile

Tosey and Smith (1999) developed the EnergyScapes Profile to measure organisational energy. This research used the same profile. It aims to measure employees' experience of the energy levels in their organisations on seven different dimensions. These are 'inspiration', 'integration', 'meaning', 'community', 'control', 'activity' and 'existence'. The seven dimensions are energies that ebb and flow according to the degree of individual and collaborative intention to perform according to organisations' business plans (Tosey, 1994). Organisations can improve performance as they monitor and highlight strengths and shortcomings, define and redefine priorities, and identify and initiate remedial actions by assessing the status of these dimensions intermittently (Tosey, 1994).

Tosey and Smith (1999) designed the questionnaire heuristically. Therefore, it uses the aggregate score for people in the same workplaces to generate discussion and inquiry amongst respondents about their organisations. The heuristic profile does not evaluate organisations definitively. Instead, it shows how participants experience their workplaces.

The EnergyScapes Profile has yet to be validated in the South African context.

The Energy Index

Stanton Marris (2002) used the Energy Index to measure the overall energy of the organisation. The questionnaire consists of three parts.

Part one of the Energy Index measures the overall energy of the organisation. Part two uses 38 paired statements that are compared with one of the four energy drivers. These are connection, content, context and climate.

The questionnaire has a dual rating. It first asks respondents to rate the importance of the statements to them. It then asks respondents to rate how true the statements have been during the last few months in the organisations where they work. The dual rating allows the questionnaire to identify the participants' value as well as the gaps between reality and aspiration in the organisations (Stanton Marris, cited in Cuff & Barkhuizen, 2011).

Part three asks respondents to rank the three statements that are most vital in energising them at work.

The Energy Index has yet to be validated in the South African context.

The Productive Organisational Energy Measure

Bruch *et al.* (2005) developed the Productive Organisational Energy Measure to establish organisational energy, as perceived by individuals, but materialised on a collective level (Cuff & Barkhuizen, 2011). The questionnaire consists of 14 items that measure behavioural, affective and cognitive dimensions. Acceptable internal consistencies were found for the Productive Organisational Energy Measure in a large multi-national study (see Bruch *et al.*, 2005).

The Productive Organisational Energy Measure has yet to be validated in the South African context.

Research design

Research approach

The researchers used a quantitative research approach to explore a new area of organisational energy. They used a cross-sectional survey design because they collected data from more than one group at a particular time and then compared their demographic variables.

Research method

Research participants

The participants were employees of a South African financial institution. Of the 3850 questionnaires the researchers distributed, participants returned 520 completed questionnaires. This is a response rate of 13.5%. According to Neuman (1994), a response rate of between 10% and 50% is common for a postal survey. Therefore, the response rate was sufficient for the research. Table 1 reports the demographic characteristics of the participants.

Table 1 shows that the respondents in this research were primarily female, aged between 20 and 29, Afrikaans-speaking and from the white ethnic group. Most participants were in permanent employment and worked between 41 and 50 hours per week. The missing values did not have a significant effect on the results of the research.

Lifestyle information that the researchers gathered showed that 90% of the participants had interests or hobbies, found time to relax (54.2%), whilst the two largest groups of participants exercised when possible, but not usually (both 22.9%). Most did not suffer from cardiovascular disease (93.8%), hypertension or diabetes (84.2%), or depression or psychosis (90.2%).

Measuring instrument

The researchers administered the EnergyScapes Profile (Tosey, 1994; Tosey & Smith, 1999) to measure organisational energy. The questionnaire consists of 105 items and measures seven dimensions. These dimensions are:

- inspiration
- integration
- meaning
- community
- control
- activity
- existence.

TABLE 1: Demographic characteristics of the participants.

Item	Category	Frequency	Percentage
Gender	Male	150	28.8
	Female	370	71.2
Marital status	Single	200	38.5
	Engaged or in a relationship	65	12.5
	Married	205	39.4
	Other (divorced, separated or remarried)	43	8.3
Age	20–29	237	45.6
	30–39	124	23.8
	40–49	72	13.8
	50–59	50	9.6
	60–69	12	2.3
Home language	Afrikaans	230	44.2
	English	169	32.5
	Other (African language)	119	22.9
Race or ethnicity	Asian	30	5.8
	Black	149	28.7
	Coloured	126	24.2
	White	215	41.3
Geographical region	Limpopo	13	2.5
	Gauteng	334	64.2
	Kwa-Zulu Natal	74	14.2
	Mpumalanga	1	0.2
	Western Cape	34	6.5
	Northern Cape	3	0.6
	Eastern Cape	61	11.7
Job level	Senior management	6	1.2
	Middle management	42	8.1
	Supervisory	49	9.4
	Staff	420	80.8
Basis of employment	Permanent	454	78.3
	Temporary	53	10.2
	Fixed-term	3	0.6
	Paid hourly	5	1
Hours worked in a week	Fewer than 21	25	4.8
	21–30	7	1.3
	31–40	11	2.1
	41–50	214	41.2
	51 and more	200	38.5

Fifteen items on a Likert measure each dimension range from 1 ('not at all') to 7 ('a very great extent'). This research will establish the validity and reliability of the EnergyScapes Profile.

The demographic information that the researchers collected about the respondents included gender, marital status, marital or relationship satisfaction, language, race, age, division or department, geographical region, job level, tenure, basis of employment and hours worked in a week. Lifestyle information included interests or hobbies, time to relax, exercise, and health status information like cardiovascular disease, hypertension and diabetes, and depression and psychosis.

Research procedure

The researchers first obtained permission from the developers of the EnergyScapes Profile (Tosey & Lewellyn, 2002) to use the instrument in this research. The researchers did a pilot study on subject experts before administering the questionnaires. They thought this necessary because of the origin of the EnergyScapes Profile. They thought it was important also to ensure that the participants understood the language in the questionnaire. The researchers changed the wording of a few questions, with the permission of the developers (Tosey & Lewellyn, 2002), following a suggestion from the pilot group.

The researchers approached the manager of the wellness practitioners of the financial institution to get permission to conduct the research. The researchers posted the questionnaires to the human resource officer who then distributed them. A covering letter explained the purpose of the study, stated that participation was voluntary and guaranteed confidentiality. The letter asked respondents to return the completed questionnaires in sealed envelopes, either to the person who had distributed them or directly to the research team.

Data analysis

The researchers did the statistical analysis using the SPSS Program (SPSS, 2007). They determined the reliability and validity of the EnergyScapes Profile using Cronbach Alpha coefficients and exploratory factor analysis. The researchers used descriptive statistics (of means, standard deviations, skewness and kurtosis) to analyse the data. They used multivariate analysis of variance (MANOVA) to determine the significance of the differences between the organisational energy (inspiration, integration, meaning, community, control, activity and existence) of the demographic groups. When an effect was significant in MANOVA, the researchers used one-way analysis of variance (ANOVA) to discover which dependent variables had been affected. The researchers set a 95% confidence level ($p \leq 0.05$) to determine statistical significance. The researchers used effect sizes (Steyn, 1999) to decide on the practical significance of the findings.

Results

The researchers first examined the psychometric properties of the EnergyScapes Profile. They included:

- the Kaiser-Meyer-Olkin (KMO) analysis to determine the sample adequacy and sphericity of the item-correlation matrix
- exploratory factor analysis to discover and identify the dimensions of the measurements
- reliability analysis, using Cronbach Alpha coefficients, to measure the accuracy of the instruments and to determine how repeatable the results are.

The EnergyScapes Profile yielded a 0.986 Measure of Sampling Adequacy. This is adequate for factor analysis (Hair, Anderson, Tatham & Black, 1998) according to the guide, which states that it should be higher than 0.6.

The researchers did an exploratory factor analysis using the Principal Axis Factoring extraction method on the EnergyScapes Profile. Initial factor loadings revealed nine factors for the EnergyScapes Profile.

TABLE 2: Descriptive statistics and Alpha coefficients – EnergyScapes Profile.

Profile	Mean	SD	Skewness	Kurtosis	Cronbach Alpha
Scales					
Organisational energy	3.97	1.17	-0.117	-0.232	0.993
Subscales					
Inspiration	4.01	1.2	-0.125	-0.299	0.957
Integration	3.89	1.15	-0.104	-0.142	0.954
Meaning	3.88	1.17	-0.078	-0.329	0.947
Community	4	1.17	-0.196	-0.166	0.951
Control	4.06	1.19	-0.113	-0.178	0.956
Activity	3.95	1.2	-0.037	-0.178	0.958
Existence	4.03	1.15	-0.201	-0.069	0.946

SD, standard deviation.

However, the nine-factor structure did not yield much and most of the items appeared to load onto one factor. The researchers did exploratory factor analysis again, extracting one factor this time. The single factor explained 56% of the variance and the researchers labelled it 'organisational energy'. The item loadings varied from 0.35 to 0.853. The researchers included all items for further analysis.

Table 2 reports the descriptive statistics and reliabilities.

Table 2 shows that the combined variable of organisational energy and its dimensions are normally distributed in the sample, with low skewness and kurtosis. The Cronbach Alpha coefficients compare well with the guide of 0.70 of Nunnally and Bernstein (1994) and show that all dimensions are reliable.

In order to determine the normality of the scale obtained in the factor analysis, the researchers did the Kolmogorov-Smirnov test. Table 3 reports the results.

The table shows that the scale conforms to normality. The Z-statistic is 0.884, which is greater than 0.05. This means that the scale is normally distributed. Unlike most statistical testing, the researchers sought a non-significant result here.

Relationship between EnergyScapes Profile dimensions and demographic variables

The researchers next did MANOVA analyses to assess the relationship between the EnergyScapes Profile dimensions

TABLE 3: One-sample Kolmogorov-Smirnov test for the EnergyScapes profile.

Kolmogorov-Smirnov test	EnergyScapes Profile
N	486
Normal parameters [a, b]	
Mean	416.860
SD	122.736
Most extreme differences	
Absolute	0.04
Positive	0.02
Negative	-0.04
Kolmogorov-Smirnov Z	0.884
Asymp. Sig. (2-tailed)	0.416

The test distribution is normal.
SD, standard deviation; Asymp. Sig., asymptotic significance.
[a], Test distribution is normal.
[b], Calculated from data.

and the demographic variables of age, race or ethnicity, gender, language, marital status, seniority level, qualification, professional level, years in position and years of experience.

The researchers first tested the results for significance using Wilk's Lambda. They used effect sizes to show the magnitude of a finding and Cohen's (1988) classification of effect sizes – 0.01 for small, 0.09 for medium and 0.25 for large – as a guide for interpreting the results. According to Grim and Yarnold (2000), most social research produces small to medium effect sizes.

Table 4 reports the results of the significant relationships between the organisational energy dimensions and demographic variables.

Table 4 makes it clear that there are significant differences between age, geographical region, tenure and the organisational energy dimensions. The researchers explored the results further by determining the effect size. Further analyses revealed no significant differences between different age groups, tenure categories and organisational energy dimensions.

The Wilks' Lambda for geographical region equals 0.855 [F (42, 2222.019) = 1.803, $p \leq 0.05$]. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0.025, showed that there are statistically significant differences between the EnergyScapes Profile dimensions of 'existence', 'control', 'meaning', 'integration' and 'inspiration' and the regions of Northern Cape, Gauteng, Kwa-Zulu Natal, Limpopo, Western Cape and Eastern Cape.

The effect sizes ranged from 0.022 to 0.031; this is small. The results also showed that the largest mean score differences were between the means of the groups from Limpopo and the activity dimension (M = 56.62, SD = 17.26) and the mean of Northern Cape and the existence dimension (M = 80.33, SD = 3.51).

Relationship between EnergyScapes Profile dimensions and lifestyle variables

The researchers then did MANOVAs on the lifestyle variables and EnergyScapes Profile dimensions (Table 5 reports the results).

Table 5 makes it clear that there are statistically significant differences between relaxation, hypertension or diabetes, depression or psychosis and organisational energy dimensions.

The researchers explored the results further by determining the effect size. The results follow.

The Wilks' Lambda for relaxation equals 0.921 [F (21, 1361.622) = 1.889, $p \leq 0.05$]. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0.025, showed that the groups differ in terms of all the organisational energy dimensions. The effect sizes ranged from 0.043 to 0.053; this is small. The results further showed that the largest mean score differences were between the means of the group that reported that they never exercised and the community dimension (M = 55.48, SD = 18.56) and the means of the group that reported that they always exercised and the control dimension (M = 67.81, SD = 14.88).

The Wilks' Lambda for hypertension or diabetes equals 0.953 [F (7, 473) = 3.039, $p \leq 0.05$]. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0.025, showed that the groups differ in all the organisational energy dimensions. The effect sizes ranged from 0.007 to 0.019. This is small. Results further showed that the largest mean score differences were between the means of the group that reported taking medicine for hypertension or diabetes and the activity dimension (M = 53.26, SD = 17.37) and the means of the group that reported not taking medicine for hypertension or diabetes and the control dimension (M = 61.53, SD = 18.22).

The Wilks' Lambda for depression or psychosis equals 0.957 [F (7, 473) = 3.299, $p \leq 0.05$]. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0.025, showed that the groups differ in terms of all the organisational energy dimensions. The effect sizes ranged from 0.024 to 0.033; this is small. Results further showed that the largest mean score differences were between the means of the group that reported suffering from depression or psychosis and the meaning dimension (M = 47.75, SD = 18.87) and the means of the group that reported not suffering from depression or psychosis and the control dimension (M = 61.60, SD = 17.64).

Discussion

The purpose of this research was to validate a measure of organisational energy in the South African financial context and to investigate whether there are differences in organisational energy as perceived by employees based on their demographic characteristics and lifestyle variables.

The research makes an important contribution to uncovering the unique aspects of organisations that contribute to the organisational energy levels of employees.

The researchers discussed the results of the research in terms of the research objective.

Validating the EnergyScapes Profile

Exploratory factor analysis resulted in a one-factor structure for the EnergyScapes Profile. The combined factor, labelled organisational energy, and the theoretical sub-scales showed acceptable reliabilities. Although the results contradict

TABLE 4: MANOVAs – Wilks' Lambda demographic variables and the EnergyScapes Profile dimensions.

Background variable	Value	F	df	Error df	p	Partial Eta squared
Gender	0.991	0.618ᵃ	7	478	0.742	0.009
Marital status	0.908	1.321	35	1992.16	0.1	0.019
Race	0.936	1.511	21	1367.37	0.065	0.022
Age	0.913	1.499	28	1638.34	0.046	0.023†
Department or division	0.89	1.341	35	1676.67	0.089	0.023
Geographical region	0.855	1.803	42	2222.02	0.001	0.026†
Job level	0.946	1.255	21	1355.88	0.196	0.018
Basis of employment	0.947	1.244	21	1353.01	0.205	0.018
Hours worked	0.962	0.575	28	1508.54	0.963	0.01
Tenure	0.905	1.638	28	1634.74	0.019	0.025†
Home language	0.96	1.410ᵃ	14	952	0.141	0.02

MANOVAs, multivariate analysis of variance; F, F-value; df, degree of freedom; p, p-value; Eta, effect size estimates.
ᵃ, Exact statistic.
†, Significant.

TABLE 5: MANOVAs – Wilks' Lambda lifestyle variables and the EnergyScapes Profile dimensions.

Background Variable	Value	F	df	Error df	p	Partial Eta squared
Interests or hobbies	0.981	1.343ᵃ	7	475	0.228	0.019
Relaxation	0.921	1.889	21	1361.622	0.009	0.027†
Exercise	0.922	1.096	35	1971.128	0.321	0.016
Cardiovascular disease	0.987	0.870ᵃ	7	470	0.53	0.013
Hypertension or diabetes	0.953	3.299ᵃ	7	473	0.002	0.047†
Depression or psychosis	0.957	3.037ᵃ	7	469	0.004	0.043†

MANOVAs, multivariate analysis of variance; F, F-value; df, degree of freedom; p, p-value; Eta, effect size estimates.
ᵃ, Exact statistic.
†, Significant.

the seven-dimensional model that Tosey and Smith (1999) proposed, the EnergyScapes Profile proved to be a valid and reliable instrument for assessing organisational energy in the South African context. More research is needed to refine the factor structure of the EnergyScapes Profile in the South African context.

Demographic characteristics and organisational energy

The overall results showed that there are statistically significant differences between the age, geographical region, tenure and the organisational energy dimensions. However, *post hoc* analysis revealed that there were only statistically significant differences between the respondents based on geographical region (Northern Cape, Gauteng, Kwa-Zulu Natal, Limpopo, Western Cape and Eastern Cape) and the organisational energy dimensions of existence, control, meaning, integration and inspiration. More research is needed to explain these relationships.

Lifestyle variables and organisational energy

The results showed that there are significant differences between the means of groups based on organisational energy and lifestyle variables like relaxation, exercise, hypertension and diabetes and depression. In this research, participants who did not suffer from hypertension, diabetes, depression and psychosis reported higher levels of organisational energy, based on the seven dimensions, than those suffering from these diseases. The findings support Schuima *et al*. (2007), who suggest that organisational energy is a result of a synergetic combination of physical energy, emotional energy and cognitive energy.

The research has important psychometric and theoretical significance because it contributes to the understanding of organisational energy in practice by applying the measuring instrument in a financial institution.

From a psychometric point of view, the research made an important contribution to validating a measure of organisational energy in the South African context.

From a theoretical point of view, one can regard this study as an expander (Colquitt & Zapata-Phelan, 2007). Expanders focus on constructs, relationships or processes that have not been the subject of prior theorising (Colquitt & Zapata-Phelan, 2007, p. 1286).

This study is the first to examine the concept of organisational energy in a South African context using the EnergyScapes Profile. Therefore, the study tests the theory of organisational energy based on a foundation of quantum physics that Tosey (1994) proposed.

Implications for managers

The insight the researchers gained from studying the concept of organisational energy contributed in a unique way. It shows the importance of seeing organisations as dynamic and interactive with the people that work for them (Pettigrew & Fenton, 2000).

Previous research has identified the need to study the interaction between organisations and people. However, it seems that there are few studies of this nature (Moran & Volkwein, 1992).

Therefore, this study of organisational energy has added to the body of knowledge in this field and will prove useful for organisations and practitioners who are interested in climate studies.

The study has also increased the awareness of energy as a way of improving the quality of life. Therefore, it could be interesting to those in the care-giving sectors.

Furthermore, the study serves as a guide for practitioners and managers for developing interventions in order to address problems of energy at both organisational and individual levels.

As the approach sees people as holistic beings, this study should prove useful to integrate thinking on the topic. A better understanding of the topic can improve leadership and productivity in commerce.

Limitations of the research

Although the study provided relevant insights into organisational energy in a financial institution, the researchers accept that this study has the usual limitations of survey research.

The researchers used a convenience sample for this research. This implies that one can only generalise the results of this study to the target organisation and to similar environments. However, the sample was adequate to validate the questionnaire.

Another limitation of the reseach includes the lack of available literature and empirical research on organisational energy. This makes it difficult to substantiate its findings.

Recommendations

This is the first empirical research done in South Africa on the subject of organisational energy. More research is needed to clarify organisational energy and to develop specific South African measurements of it.

The researchers recommend that the seven-point Likert-type response scale they used for the EnergyScapes Profile is further refined to improve the reliability and validity of responses.

The researchers recommend that the scale is shortened in order to get clearer indications from respondents. The respondents' answers tended to gravitate to the mean because this is an opinion survey.

Conclusion

The study of organisational energy is relatively new and many gaps still exist in the body of knowledge. Organisational energy comprises multi-faceted dimensions that are not easy to define or categorise. Nevertheless, these dimensions work on a day-to-day basis. Employees and managers speak about them without having clear definitions of the concepts. They are a reality of organisational life. Any further research can only increase understanding and improve the lives of employees and the efficiency of their organisations. The findings of this study give valuable insights into the theory of organisational energy. They also determine the psychometric properties of the scales in a South African context. Therefore, the results of this study should encourage other organisations to question the organisational energy of their employees.

References

Adams, J.D. (1984). *Transforming Work: A Collection of Organisational Transformation Readings*. Alexandria, VA: Miles River Press.

Ali, I.M., Pascoe, C., & Warne, L. (2002). Interactions of organisational culture and collaboration in working and learning. *Educational Technology & Society*, *5*(2) 1–10.

Bateson, G. (1998). *Mind and Nature*. Bantam Books: London.

Biberman, J., & Whitty, M. (1997). A postmodern spiritual future for work. *Journal of Organisational Change Management*, *10*, 130–138. doi:10.1108/09534819710160790

Biberman, J., Whitty, M., & Robbins, L. (1999). Lessons From Oz: Balance and Wholeness in Organizations. *Journal of Organizational Change Management*, *12*(3), 243–254. doi:10.1108/09534819910274035

Bohm, D. (1980). *Wholeness and implicate order*. New York: Routledge & Kegan Paul.

Boisot, M.H. (1994). *Learning as creative destruction*. In Boot, R., Lawrence & Morris, J. (Eds.). *Managing the unknown*. London: McGraw-Hill.

Bruch, H., & Goshal, S. (2003). Unleashing organisational energy. *MIT Sloan Management Review*, 45–51.

Bruch, H., Menges, J., Cole, M.S., & Vogel, B. (2009). High performance work systems and firms performance: The mediating role of organisational energy. Paper presented at the Academy of Management Conference, IL.

Bruch, H., Vogel, B., & Rates. (2010). Productive organisational energy as a mediater between strategic leadership and performance. Paper presentated at the Academy of Management Conference, Montreal, Canada, 6–10 August.

Capra, F. (1996). *The web of life*. New York: Doubleday.

Cartwright, S., & Holmes, N. (2006). The meaning of work: The challenge of regaining employee engagement and reducing cynicism. *Human Resource Management Review*, *16*, 199–208. doi:10.1016/j.hrmr.2006.03.012

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (revised edn.). Orlando, FL: Academic Press.

Cole, M.S., Bruch, H., & Vogel, B. (2005). Development and validation of a measure for organisational energy. Paper presented at the Academy of Management Conference, Honolulu, Hawaii, 5–10 August.

Colquitt, J.A. (2007). Trends in theory building and theory testing: A five-decade study of the Academy of Management Journal. *Academy of Management Journal, 50*(6), 1281–1303.

Crane, T.C., Dillar, B.G., & Hamilton, J.A. (2003). Empowered teams effecting positive corporate culture change. *Journal of Fashion Marketing and Management*, *7*, 182–195. doi:10.1108/13612020310475474

Cross, R., Baker, W., & Parker, A. (2003). What creates energy in organisations? *MIT Sloan Management Review, Summer*, 51–56.

Cuff, R., & Barkhuizen, E.N. (2011). *Exploring the concept of organisational energy in the South African context*. Unpublished research paper.

Dang, L.M. (2005). Scientific description of universal energy. Retrieved November 04, 2005, from http://mel-southafrica.co.za/researchuniversalenergy.htm

De Jong, R.J. (2006). The decision to innovate: Literature and propositions. Scientific Analysis of Entrepreneurships and SMEs. Zoetermeer, Netherlands Ministry of Economic Affairs.

Dutton, J.E. (2003). *Energize your workplace: How to create and sustain high-quality connections at work*. San Fransisco, CA: Jossey-Bass.

Garg, P., & Rastogi, R. (2006). New model of job design: motivating employee's performance. *Journal of Management Development*, *6*, 572–587. doi:10.1108/02621710610670137

Gerber, R. (2001). *Vibrational medicine* (3rd Edn.). Vermont: Bear & Company.

Grimm, L.G., & Yarnold, P.R. (2000). *Reading and understanding MORE multivariate statistics*. Washington, DC: APA.

Hair, J.F. Jr., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998) Multivariate Data Analysis (5th edn.). Upper Saddle River, NJ: Prentice-Hall International.

Henry, J. (2004). *Energy: The fundamentals of personal energy*. St Paul: Llewellyn Publications.

Jaworski, J. (1996). *Synchronicity: The inner path of leadership*. San Francisco: Barrett-Koehler.

King, S., & Nicol, D.M. (1999). Organisational enhancement through recognition of individual spirituality. *Journal of Organisational Change Management*, *12*, 234–242. doi:10.1108/09534819910274026

Kinjerski, V.M., & Skrypnek, B.J. (2004). Defining spirit at work: finding common ground. *Journal of Organisational Change Management*, *17*, 26–42. doi:10.1108/09534810410511288

Kirstenbaum, M. (2003). *The emotional energy factor: The secrets high-energy people used to beat emotional fatigue*. New York: Random House.

Kirstenbaum, M. (2005). The emotional energy factor: The secrets high-energy people use to beat emotional fatigue. Retrieved November 13, 2005, from http://www.amazon.com/gp/product/product-description

Koster, F., & Sanders, K. (2006). Organisational citizens or reciprocal relationships? An empirical comparison. *Personnel Review*, *35*, 52–63. doi:10.1108/00483480610682271

Linder, J.C., Cross, R., & Parker, A. (2006). All charged up. *Business Strategy Review*, 25–29. doi:10.1111/j.0955-6419.2006.00414.x

Martins, C., & Terblanche, F. (2003). Building organisational culture that stimulates creativity and innovation. *European Journal of Innovation Management*, *6*, 64–74. doi:10.1108/14601060310456337

Mitroff, I.J., & Linstone, H.A. (1993). *The unbound mind*. New York: University Press.

Moran, E.T., & Volkwein, J.F. (1992). The cultural approach to the formation of organisational culture. *Human Relations, 45*, 19–47.

Neal, J.A., Bergmann Lichtenstein, B.M., & Banner, D. (1999). Spiritual Perspectives on individual, organisational and social transformation. *Journal of Organisational Change Management, 12*(3), 175–185.

Neuman, W.L. (1994). *Social Research Methods: Qualitative and Quantitative Approaches*. Allyn and Bacon, Boston, MA.

Nunnally, J.C., & Bernstein, I.H. (1994). *Psychometric theory* (3rd edn.). New York: McGraw-Hill.

Ogbor, J.O. (2001). Critical theory and the hegemony of corporate culture. *Journal of Organisational Change Management, 14*, 590–608. doi:10.1108/09534810110408015

Pettigrew, A.M., & Fenton, E.M. (2000). *The innovating organisation*. London: Sage Publications.

Porth, S.J., McCall, J., & Bausch, T.A. (1999). Spiritual themes of the 'learning organisation'. *Journal of Organisational Change Management*, *12*, 211–220. doi:10.1108/09534819910273883

Richards, D. (2006). The human decision of problem solving. *Consulting to Management*, *17*, 39–42.

Sadri, G., & Lees, B. (2002). Developing corporate culture as a competitive advantage. *Journal of Management Development*, *20*, 853–859. doi:10.1108/02621710110410851

Schiuma, G., Mason, S., & Kennerley, M. (2007). Assessing Energies within organisations. *Measuring Business Excellence*, *11*, 69–78. doi:10.1108/13683040710820764

Senge, P.M., Scharmer, C.O., Jaworski, J., & Flowers, B.S. (2005). *Presence*. London: Nicholas Brealey Publishing.

Small, M.W. (2006). Management development: Developing ethical corporate culture in three organisations. *Journal of Management Development*, *25*, 588–600. doi:10.1108/02621710610670146

Smith, P., & Tosey, P. (1999). Assessing the learning organisation: part 1 – theoretical foundation. *The Learning Organisation*, *6*(2), 70–75. doi:10.1108/09696479910262596

Souza-Poza, A., Nystrom, H., & Wiebe, H. (2001). A cross-cultural study of the differing effects of corporate culture on TQM in three countries. *International Journal of Quality & Reliability Management*, *18*, 744–761. doi:10.1108/EUM0000000005778

SPSS Inc. (2009). *SPSS 17.0 for Windows.* Chicago, IL: Author.

Stanton Marris. (2002). Energising the organisation. Issue 1 and 2. Retrieved October 06, 2006, from http://www.stantonmarris.com

Steyn, H.S. (1999). *Praktiese betekenisvolheid: Die gebruik van effekgroottes. (Practical significance: The use of effect sizes.)* Wetenskaplike bydraes – Reeks B: Natuurwetenskappe Nr. 117. Potchefstroom: PU vir CHO.

Tosey, P. (1994). Energies of organisation and change. In Burgoyne, J., Pedlar, M., & Boydell. T. (Eds.). *Toward the Learning Company*. Berkshire: McGraw-Hill Book Company, Europe.

Tosey, P., & Smith, P.A.C. (1999). Assessing the learning organisation: part 2 – exploring practical assessment approaches. *The Learning Organisation*, *6*, 107–115. doi:10.1108/09696479910270434

Tosey, P., & Llewellyn, C. (2002). Enquiring into organisational 'energy': a consulting example. *The Learning Organisation*, *9*, 55–64.

Weymes, E. (2005). Organisations which make a difference: A philosophical argument for the 'people focused organisation'. *Corporate Governance*, *5*, 142–158. doi:10.1108/14720700510562721

Wheatley, M.J. (1992). *Leadership and the new science*. San Francisco: Berret-Koehler Publishers.

Zohar, D., & Marshall, I. (2004). *Spiritual capital. Wealth we can live by*. London: Bloomsbury Publishing.

Zukov, G. (1979). *The dancing Wu Li Masters: An overview of the new physics*. London: Rider & Co.