



A Sound of Silence

Geert-Jan van Bussel

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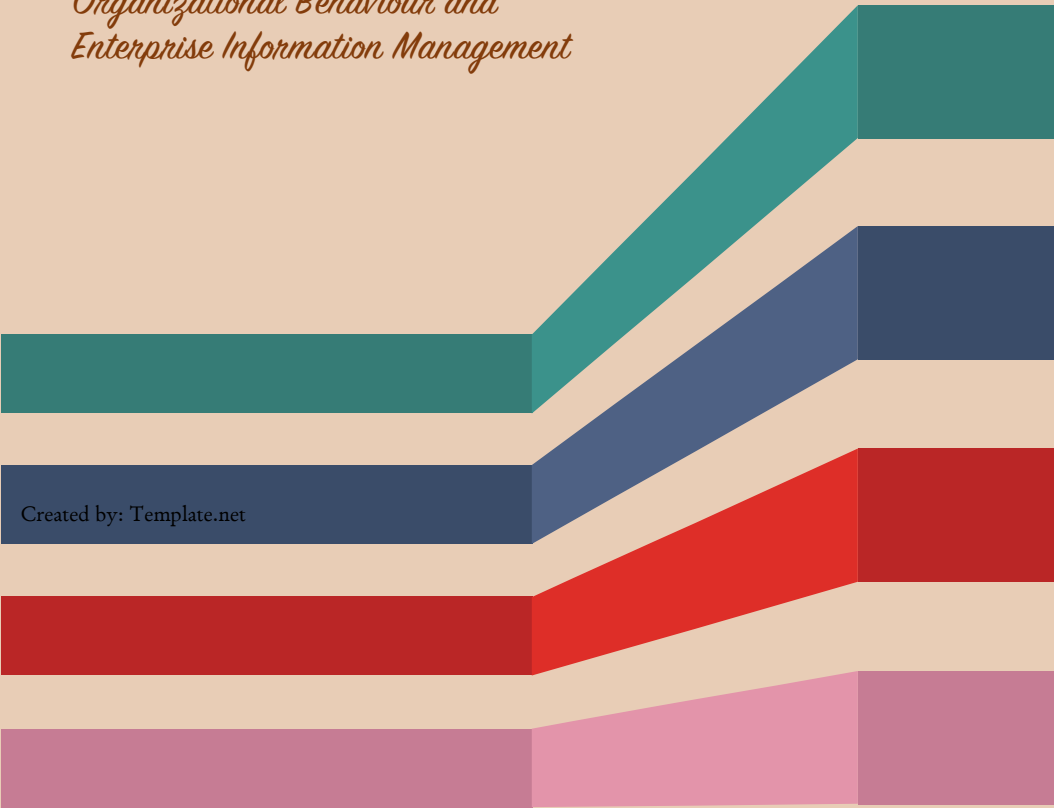
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Papers on Information and Archival Studies I

A Sound of Silence

*Organizational Behaviour and
Enterprise Information Management*



DR. GEERT-JAN VAN BUSSEL

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**Papers on
Information and Archival Studies**

I

A Sound of Silence

**Organizational Behaviour and
Enterprise Information Management**

Dr G.J. van Bussel

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Geert-Jan van Bussel (1960) is an independent consultant, researcher, and auditor, specialized in information governance, digital archiving, and compliance. He is a leading auditor of records management and archiving standards (ISO 15489, ISO 16175, ISO 23081, ISO 16363 and the Dutch standard NEN 2082). As a strategic consultant he is asked for assistance by many (international) business organizations and government agencies. He is senior lecturer and researcher at the Amsterdam University of Applied Sciences and Assistant Professor at the University of Amsterdam. He is one of the leading archival scholars in the Netherlands and is a visiting lecturer at several universities in Europe. He was president of the Special Commission for the Archives (1998–2002; 2009–2011), a commission of the Council of Culture, the most important advisory body on culture for the Dutch government. He is a (keynote) speaker on many (international) seminars and conferences, mostly on the effects and influence of information processing and information management on people's work. He published more than hundred papers and four books on business processes, governance, auditing, compliance and digital archiving.

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‘ARCHIVE-AS-IS’, SUBJECT, CORE CONCEPTS, AND STRUCTURE

✱

THEORETICAL FRAMEWORK *

In 2017, I introduced a new theoretical framework in Archival Science, that of the ‘Archive-as-Is’.¹ This framework proposes a theoretical foundation for Enterprise Information Management (EIM) in World 2.0, the virtual, interactive, and hyper connected platform that is developing around us. This framework should allow EIM to end the existing ‘information chaos’, to computerize information management, to improve the organizational ability to reach business objectives, and to define business strategies. The concepts of records and archives are crucial for those endeavours. As such, the theoretical framework is also an archival theory.

The framework is a declarative model for understanding the archive ‘as is’, how it has been designed, constructed, processed, man-

* The research for this paper was partly done during a residence in April 2019 with the *Residència d’Arts, Ciències i Humanitats de Catalunya a Olot*. My thanks are especially for Francesc Serés and Gavina Freixa, for organizing these residences, and all other residents of the Archivistics Residence: Thiara Alves, Huey-Min Chuang, Amelie Fan, Denis Kim-Prieto, Catherine Li, James Lowry, Joan Soler, and Sherry Xie, for their useful comments, the lively discussions, and the great amounts of humour.

¹ G.J. van Bussel (2017a), ‘The theoretical framework of the ‘Archive-as-Is’. An organization oriented view on archives. Part I. Setting the stage: enterprise information management and archival theories’, F. Smit, A. Glaudemans, and R. Jonker (eds.), *Archives in Liquid Times*, SAP, ‘s-Gravenhage, pp. 16–41; and G.J. van Bussel (2017b). ‘The theoretical framework of the ‘Archive-as-Is’. An organization oriented view on archives. Part II. An exploration of the ‘Archive-as-Is’ framework’, F. Smit, A. Glaudemans, and R. Jonker (eds.), *Archives in Liquid Times*, SAP, ‘s-Gravenhage, pp. 42–71.

ipulated, and managed, and how it has ‘grown’ to be the archive that the organization that generated it, wanted it to be. From the moment of their creation, archives are distortions of reality, only presenting biased images of the past (and even the present) due to the way organizations (and, especially, the people that collaborate in that organization) ‘behave’. Contextualizing (by archivists) will be crucial to explain that distortion as much as is possible, but archivists are not neutral. In the end, the archive is as it is, a construct configured, managed, and preserved according to organizational demands and desires, with gaps as a result of archival appraisal and selection, and, as a consequence, presenting a simplified and distorted view of the contexts in which the records and the archive were generated. The challenge is to ensure that the archive can be used as a business resource in World 2.0. The framework of the ‘Archive-as-Is’ is an organization-oriented archival theory, consisting of five components, namely: [1] four dimensions of information, [2] two archival principles, [3] five requirements of information accessibility, [4] the information value chain; and [5] organizational behaviour.

I elaborated on the framework, with special emphasis on World 2.0, in *Espacios de Memoria*, part of the annual archival studies of the Asociación de Archiveros de Castilla y León,² and, with an emphasis on the use of the framework as a declarative model for historians, in *From Dust to Dawn. Archival Studies after the Archival Turn*, the

² G.J. van Bussel (2019). ‘Archivos institucionales en el ‘Mundo 2.0’. El marco de actuación para el ‘Archive-as-Is’ [Archivo-como- es]’, L. Esteve Casellas I Serra and L. Hernández Olivera (eds.), *Espacios de memoria. Estrategias y discursos para archivos históricos*. Tabula. XII, Estudios Archivísticos de Castilla y León, Asociación de Archiveros de Castilla y León, Salamanca, pp. 41–79.

proceedings of a conference organized by the University of Uppsala.³

RESEARCH SUBJECT

In this paper, the subject of research is component 5 of the framework: *organizational behaviour*. Behaviour of employees (including archivists) is one of the most complicated aspects within organizations when creating, processing, managing, and preserving information, records, and archives. There is an almost universal ‘sound of silence’ in scholarly literature from archival and information studies although this subject and its effects on information management are studied extensively in many other disciplines, like psychology, sociology, anthropology, and organization science.⁴ To understand records and archives as subjective constructs that

³ G.J. van Bussel (2020). ‘Determining the value of a digital archive. The framework for the ‘Archive-as-Is’, A. Öhrberg, O. Fischer, T. Berndtsson, and A. Mattsson (eds.), *From Dust to Dawn. Archival Studies after the Archival Turn*. Uppsala Rhetorical Studies, University of Uppsala, Uppsala (in press).

⁴ A project at the University of Northumbria (2007–2010) on designing an organization-centred architecture proved that people issues were predominant and challenging, and that they concerned culture, attitudes, awareness, knowledge, and skills. See: J. McLeod, S. Childs, and R. Hardiman (2011). ‘Accelerating positive change in electronic records management. Headline findings from a major research project’, *Archives and Manuscripts*, Vol. 39, No. 2, pp. 66–94. A study in 2014 also referred to ‘people-as-a-problem’. See: G. Oliver and F. Foscarini (2014). *Records Management and Information Culture. Tackling the People Problem*, Facet Publishing, London.

show distorted reflections of reality, the behaviour of organizations and their employees is crucial for the information value chain in which records and archives are generated, managed, and preserved. Archivists, for instance, are not neutral, independent ‘keepers of archives’; they are people who are managing archives, appraising and selecting what is ‘important’, and describing and structuring archives based on personal and professional assumptions, values, and beliefs. Or, as Samantha Cutrara wrote: ‘a person writes those descriptions; a person with subjective criteria defines the terms, and thus ideas, that framed the sources.’⁵

In this paper, I want to study *how and why* employees behave as they do when they are working with records and archives and how EIM is influenced by this behaviour.

CORE CONCEPTS

The core concepts used are ‘information’, ‘records’, and ‘archives’, closely followed by ‘information value chain’. ‘Information’ is an extremely general and ambiguous concept, reason for numerous papers and books trying to explain the concept. There is not a single answer to the question of what information is. A very useful distinction has been made by Michael Buckland, who distinguished ‘information-as-process’, ‘information-as-knowledge’, and ‘information-as-thing.’ The first two are intangible (and expressions of a *semantic* concept of information), the last one tangible

⁵ S. Cutrara (2019). ‘The subjectivity of archives. Learning from, with, and resisting archives and archival sources in teaching and learning history’, *Historical Encounters. A Journal of Historical Consciousness, Historical Cultures, and History Education*, Vol. 6, No. 1, pp. 117–132, p. 125.

(and an expression of a *physical* concept of information.⁶ In ‘information-as-process’ people are informed of something new and it changes what they know. ‘Information-as-knowledge’ is ‘knowledge’ perceived in ‘information-as-process.’ It cannot be directly touched or measured, because it is personal, subjective, and conceptual. To communicate this ‘information’ (knowledge), it has to be externalized, expressed in spoken word (which is ‘information-as-process’), or inscribed, represented in a physical way. Such an inscription would be ‘information-as-thing’, a book, a document, a database-record, a metadata schedule, a pdf-file, a picture, a sound recording, a movie, big data, etc. In short: information objects. A special expression of ‘information-as-thing’ are ‘records’.

‘Records’ are combinations of information objects and their embedding metadata (via a metadata schedule), generated and used in the course of (business) processes, actions, and transactions, stored in an archive irrespective of format used, with a unique content, context, and structure, and retained and preserved for whatever reason organizations (or individuals, groups, or families) want to set them aside or for whatever period of time they (or parts of them) are retained. This definition, based on archival theory, states that in organizations, in essence, *all ‘information-as-things’ (and their embedding metadata) directly linked to activities in (business) processes, activities, and projects*, irrespective of the generating, receiving, or stor-

⁶ M.K. Buckland (1991). ‘Information as thing’, *Journal of the American Society for Information Science*, Vol. 42, No. 5, pp. 351–360. See: O. Lombardi (2004). ‘What is information?’, *Foundations of Science*, Vol. 9, No. 2, pp. 105–134. Lombardi also recognizes a *syntactic* concept of information, a formal notion with no reference, which is part of mathematical theory. Buckland does not use mathematical theory in the explanation of his distinction, and a ‘syntactic’ concept is not used.

ing ICT-systems, *are 'records.'*⁷ EIM is, hence, primarily managing 'records', be they structured or unstructured, although there are information objects that do not have unique content, like published (e-) books or booklets in business libraries. When I am using the term 'information', I refer to *all those 'information-as-things' in their expression as records*. When citing or summarizing other scholars, I will use their terminology. I will use 'sensory information' when discussing 'information-as-process', and 'knowledge' when discussing 'information-as-knowledge'.

'Archives' are organizational or personal constructs, data stores embedded in and enriched by metadata (schedules) about their creation, organizational environment, and management, in which 'records' (from the moment of their creation) are persistently stored and managed with the objectives of reliably reconstructing the past, delivering evidence, and realizing meaningful production.⁸

EIM manages the 'information value chain', ten distinct, generic processes and nineteen activities that an organization (an organizational chain and/or even a person) performs when managing records and archive. The chain is comprised of five primary processes, used to manipulate the archive and its records, and five secondary processes that guide performance of the primary processes and their activities.⁹

⁷ A similar view: S.L. Xie, and G. Fan (2019). 'Records systems and information systems. Connecting in organizations', A. Fred, J. Dietz, D. Aveiro, K. Liu, J. Bernardino, and J. Filipe (eds.), *Knowledge Discovery, Knowledge Engineering and Knowledge Management*. IC3K 2016. Communications in Computer and Information Science, Vol. 914, Springer, Cham, pp. 363–394, especially 364–366.

⁸ For the definition of records and archives: Van Bussel (2017a), p. 19.

⁹ For a detailed overview of the processes and activities of the information value chain: Van Bussel (2017b), pp. 57–59.

STRUCTURE OF THIS PAPER

This paper is structured as follows:

1. An introduction to organizational behaviour, in which its definition and its key characteristics will be discussed;
2. An extensive description of two essential organizational phenomena, directly characterizing the work environment of employees and influencing their behaviour: organizational climate and organizational culture. Both are crucial for understanding behaviour in organizations. Organizational climate is about the individual employee perceptions of their environment, is more defined by the psychological dimensions of behaviour, and is defined as ‘property of the individual.’ Organizational culture is ‘the way things are done in an organization’, the routines historically developed based on organizational assumptions, values, beliefs, norms, desired behaviours, and artefacts. It is the ‘property of the organization’;
3. EIM and information behaviour, in which the way employees behave when using, processing, and managing information, records, and archives;¹⁰

¹⁰ I will use the term ‘information behaviour’ in a broader interpretation than in traditional research. ‘Information behaviour’ studies the way people search for and use information in various contexts. It includes ‘information seeking’, ‘information retrieval’, and ‘information use’. See: T.D. Wilson (1981). ‘On user studies and information needs’, *Journal of Documentation*, Vol. 37, No. 1, pp. 3–15. Online source, retrieved on September 12, 2020 from: <https://doi.org/10.1108/eb026702>. Wilson defined information behaviour as ‘the totality of human behavior in relation to sources and channels of information, including both active and passive information

4. Four intangible phenomena that are directly influencing information behaviour: (1) psychological ownership, (2) the way employees are (un-) consciously appraising information, (3) the neglect of social relations in 'over-organized' control systems, and (4) absent, unshared, or fragmented 'information culture'; and
5. Some concluding remarks in which the findings of this research will be summarized and some recommendations will be made.

seeking, and information use.' T.D. Wilson (2000). 'Human information behaviour', *Informing Science*, Vol. 3, No. 2, pp. 49–55, especially p. 49. 'Information behaviour' is, as a research theme, essentially studied within Library and Information Science. An analysis of literature reveals that it concentrates on information needs, information seeking, and information use. There is no attention for many processes and activities within the information value chain that are affected by employee behaviour, like: identifying, capturing, storing, distributing, structuring, contextualizing, appraising, disposing, preserving records, etc. In my use of the term, these processes and activities are included.

2

ORGANIZATIONAL BEHAVIOUR

*

DEFINING BEHAVIOUR

Realizing the success of a business strategy and achieving the objectives of an organization are for a large part dependent on the way individual employees behave. Behaviour can be defined as the actions and mannerisms of individuals (organisms, systems, or artificial entities) in conjunction with themselves or their environment. Behaviour is the coordinated response to stimuli or inputs, whether internal or external, conscious or subconscious, voluntary or involuntary. It is largely based on soft factors, like competences and skills, employee relationships, standards, desires, and values, factors that are difficult to measure.¹¹ These factors are influencing the climate and culture of organizations and affect motivation as well as performance of employees.¹² Organizational behaviour is, as I use it within the framework of the Archive-as-Is, simplified, human behaviour in organizational settings as well as the structure(s) and

¹¹ D.A. Levitis, W.Z. Lidicker, and G. Freund (2009). 'Behavioural biologists do not agree on what constitutes behaviour', *Animal Behaviour*, Vol. 78, No. 1, pp. 103–110. For a more metatheoretical approach: J. Uher (2016). 'What is behaviour? And (when) is language behaviour? A metatheoretical definition', *Journal for the Theory of Social Behaviour*, Vol. 46, No. 4, pp. 475–501. See also: A. Rogala and S. Bialowas (2016). *Communication in Organizational Environments. Functions, Determinants, and Areas of Influence*, Palgrave Macmillan, London, Chapter 4, pp. 99–150, p. 99.

¹² C. Ostroff, A.J. Kinicki, and R.S. Muhammad (2013). 'Organizational culture and climate', I.B. Weiner, N.W. Schmitt, and S. Highhouse (eds.), *Handbook of Psychology. Vol 12: Industrial and Organizational Psychology*, John Wiley & Sons, Hoboken (NJ), pp. 643–676.

behaviour of organizations themselves.¹³ Behaviour is studied at macro and at micro level. Studies at macro level do have their roots in sociology and economics. They deal with questions of organizational structure, design, and action within social and economic contexts. At micro level, the study of behaviour is rooted in psychology, and deals with attitudes and behaviour of (groups of) individuals and the way they are influenced by and are themselves influencing organizational settings.¹⁴ Behaviour is influenced by (and, in turn, has an influence on) the direct work environment and the wider organizational settings.

FOUR PROPOSITIONS

In this paper, not the *external behaviour* of organizations is subject of research but the *behaviour of individuals within organizations*. Four propositions provide the theoretical base for the interpretation of behaviour in organizations.¹⁵ The first proposition is that

¹³ B.M. Staw (1984). 'Organizational behaviour. A review and reformulation of the field's outcome variables', *Annual Review of Psychology*, Vol. 35, pp. 627–666, p. 628. This definition is, in more or less the same words, widespread and is mentioned and used in several general handbooks on organizational behaviour, like, for instance: R.W. Griffin and G. Moorhead (2014). *Organizational Behavior. Managing People and Organizations*, South-Western Cengage Learning, Mason (OH), eleventh edition, p. 4.

¹⁴ Staw (1984), p. 628. See also: *The SAGE Handbook on Organizational Behavior*. Volume I (J. Barling and C.L. Cooper, eds.): *Micro Approaches*, and Volume II (S.R. Clegg and C.L. Cooper, eds.), *Macro Approaches*, London, SAGE, 2008.

¹⁵ Formulated by: A.J. Dubrin (1978). *Fundamentals of Organizational Behavior. An Applied Perspective*, Pergamon Press, New York, second edition,

organizational behaviour follows the principles of human behaviour. Each individual employee brings the organization unique personal characteristics, a unique personal (ethnic) background, unique perceptions, and a unique set of experiences (some of them from other organizations). They have different capabilities for learning and for handling responsibility. They have different beliefs, attitudes, and aspiration levels. Organizational leaders need to be aware of the unique perspective each individual employee brings to a work setting. The behaviours employees exhibit will be different based on their background and experiences, despite the influence of their work unit.¹⁶ The second proposition is that *organizations are social systems*. Relationships among individuals and groups in organizations create expectations for the behaviour of individual employees. Organizations have systems of authority, status, and power that influence behaviour with specific expectations. Work units in organizations, like teams, have a powerful impact on employee behaviour. Although they do not alleviate individual differences, they create ‘common ground’ in beliefs, attitudes, and ‘shared’ behaviour. How stronger the systems of authority, status, and power of the organization are, how more this ‘common ground’ mirrors the organizational expectations and desired behaviours. Group-driven expectations are communicated within the group and structure, hierarchy, and norms come into being, focused on accomplishing goals.¹⁷ A

pp. 17–28. I am using the interpretation of these principles by: J.L. Gibson, J.M. Ivancevich, J.H. Donnelly, and R. Konopaske (2012). *Organizations. Behavior, Structure, Processes*, McGraw Hill, New York, fourteenth edition, pp. 6–7.

¹⁶ Rogala and Bialowas (2016), pp. 99–103.

¹⁷ Gibson, Ivancevich, Donnelly, and Konopaske (2012), pp. 11–12, 234; Griffin and Moorhead (2014), pp. 247–248: ‘By providing a basis for predicting others’ behaviors, norms enable people to behave in a manner con-

third proposition is that *organizational behaviour is situational*. The behaviour of an employee in a situation involves the interaction of that employees' personal characteristics and environmental variables. To understand behaviour, the pressures placed on an employee in a specific situation need to be acknowledged by organizational leaders to determine how to manage that situation. There is not one best way to manage situations. A method effective in one situation may not work at all in others.¹⁸ The fourth, and last proposition is that *organizational behaviour is affected by organizational structure and processes*. There is a formal structure (degree of centralization, span of control, layers of hierarchy, etc.) and an informal structure (social networks) within an organization. The formal structure explains how an organization *should* function, while the informal structure is how the organization *actually* functions. The informal structure is the invisible network of interpersonal relationships that shape how people connect with one another to carry out their activities, formed through conversations and relationships that occur as people interact with one another in their day-to-day work. It is complex, difficult to control, and has the potential to influence success or failure. These relationships are constantly in flux, as people

sistent with and acceptable to the group. Without norms, the activities in a group would be chaotic.'

¹⁸ Griffin and Moorhead (2014), pp. 331–342. As defined in situational leadership (or contingency) models. The strength of this approach is that it encourages analysis of each situation prior to action, but this is also its weakness: it is reactive in stead of pro-active. It discourages using universal assumptions about methods and people because every situation asks for another solution, but in case of stringent time limits managers may not be able to dig deeper into the situation and they might fall back on general methods. For a quick introduction: L. Donaldson (2001). *The Contingency Theory of Organizations*, SAGE, Thousand Oaks (Ca), especially Chapter 1, pp. 1–30, and Chapter 5, pp. 125–160.

interact with new individuals, current relationships evolve, and organizations change over time.¹⁹ Both types of structures shape the patterns of influence, administration, and leadership.²⁰

The four propositions determine the relationship of the individual employee with the organization in which he or she has started to work.

THE 'PSYCHOLOGICAL CONTRACT'

That relationship is defined by the concept of the 'psychological contract', an intangible concept that refers to the relationship between organization and employees and concerns mutual expectations of inputs and outcomes. Such a contract is, if we are to believe Chris Argyris and Edgar Schein, the key factor that determines the

¹⁹ R. Cross, S.P. Borgatti, and A. Parker. (2002). 'Making invisible work visible: using social network analysis to support strategic collaboration', *California Management Review*, Vol. 44. No. 2, pp. 25–46.

²⁰ J.M. Brown, E.A. Benagh, and C.G. Fournelle (2015). 'Determining formal and informal organizational hierarchy', *Proceedings on the International Conference on Artificial Intelligence (ICAI)*. The Steering Committee of The World Congress in Computer Science, Computer Engineering and Applied Computing (WorldComp), pp. 212–217. See also: T.J. Watson (2001). 'Organization: informal', N.J. Smelser and P.B. Baltes (eds.), *International Encyclopedia of the Social and Behavioral Sciences*, Elsevier, London, pp. 10907–10910 and C.L. Wang and P.K. Ahmed (2002). *The Informal Structure. Hidden Energies within the Organization*, Working Paper Series 2002, University of Wolverhampton, Wolverhampton. Online source, retrieved on September 12, 2020, from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.550.5153&rep=rep1&type=pdf>.

motivation of individuals in organizations.²¹ The psychological contract refers to the beliefs of employee and employer regarding the terms and conditions of the agreement between them, based on perceptions of reciprocal promises and obligations. A psychological contract is, as Denise Rousseau states, a 'mental model', a subjective image based on beliefs and perceptions about pay, working hours, or job security, but also about concerns such as being treated with dignity, autonomy, and opportunities to learn and develop.²² Psychological contracts are individual cognitive structures that motivate judgment and behaviour through anticipation of the future of the agreed upon exchange.²³

Within these structures, unconscious assumptions relating to group situations are addressed. They reveal underlying anxiety about the world and one's place in it. The contract helps in dealing with these unconscious feelings of anxiety and insecurity.²⁴ A breach of the contract refers to failure to fulfil obligations, but it is possible that a breach is only perceived.²⁵ Perceptions of a breach are not always shared by the contract parties, arising from the ex-

²¹ C. Argyris (1960). *Understanding Organizational Behavior*, Dorsey Press, Homewood (IL), passim; E.H. Schein (1965). *Organizational Psychology*, Prentice Hall, Englewood Cliffs (NJ), p. 65.

²² D.M. Rousseau (1995). *Psychological Contracts in Organizations. Understanding Written and Unwritten Agreements*, SAGE, Thousand Oaks (Ca), pp. 27–28.

²³ D.M. Rousseau, M. Tomprou, and S. D. Montes (2013). 'Psychological contract theory', E.H. Kessler (ed.), *Encyclopedia of Management Theory*, SAGE, Thousand Oaks (Ca), Vol 1, pp. 634–639.

²⁴ M.F.R. Kets de Vries (2011). *Reflections on Groups and Organizations*, John Wiley & Sons, Chichester, West Surrey, pp. 32–33, including a description of these assumptions.

²⁵ S.L. Robinson (1996). 'Trust and breach of the psychological contract', *Administrative Science Quarterly*, Vol. 41, No. 4, pp. 574–599.

tent the perceptions of the content of the contract are mutual.²⁶ It does not matter whether the breach is real or not: its effects will be the same.²⁷ It may lead to behavioural reactions and a loss of trust. Anger, resentment, a sense of injustice, and dissatisfaction may result in the dissolution of the relationship itself.²⁸ Within a team or a group, the perceptions of individual psychological contracts will, more or less, be shared with other members of the team or group. These shared perceptions of psychological contracts will become key determinants of team members' attitudes and behaviours in the workplace.²⁹

HIDDEN DYNAMICS

Organizational successes and failures are due to the behaviour of people, whether they be managers or other employees. Behaviour

²⁶ E.W. Morrison and S.L. Robinson (1997). 'When employees feel betrayed. A model of how psychological contract violation develops', *Academy of Management Review*, Vol. 22, No. 1, pp. 226–256.

²⁷ S.L. Robinson and E.W. Morrison (2000). 'The development of psychological contract breach and violations. A longitudinal study', *Journal of Organizational Behavior*, Vol. 21, No. 5, pp. 525–546.

²⁸ C. Atkinson (2007). 'Trust and the psychological contract', *Employee Relations*, Vol. 29, No. 3, pp. 227–246, and D.E. Guest (2016). 'Trust and the role of the psychological contract in contemporary employment relations', P. Elgoibar, M. Euwema, L. Munduate (eds.), *Building Trust and Constructive Conflict Management in Organizations*, Springer, Cham, pp. 137–149.

²⁹ Schein (1965), *passim*; C. Lucas and T. Kline (2008). 'Understanding the influence of organizational culture and group dynamics on organizational change and learning', *The Learning Organization*, Vol. 15, No. 3, pp. 277–287.

in organizations is determined by psychological and cognitive factors of (groups of) individual employees. As Manfred Kets de Vries very succinctly stated, paying attention to the internal and social dynamics and to the unconscious, invisible psychodynamic processes and structures influencing behaviour of individuals and groups is needed for understanding organizations. It would help organizational leaders to understand the hidden dynamics associated with motivation, leadership, interpersonal relationships, collusive situations, and social defences.³⁰ And: though decisions and strategies are based on rational models, real people (with their conscious and unconscious quirks) make and implement them. Even the behaviour of successful organizational leaders can be irrational.³¹

Two organizational phenomena have an enormous impact on behaviour: organizational climate and culture. Both phenomena define an environment in which these psychological and cognitive factors play their important role, for better or for worse. Organizational climate and culture are very important for the success or failure of EIM.

³⁰ Kets de Vries (2011), p. 31. For the effects of these psychoanalytical problems by leaders, see the ground-breaking study of: M.F.R. Kets de Vries and D. Miller (1984). *The Neurotic Organization. Diagnosing and Changing Counterproductive Styles of Management*, Jossey-Bass, San Francisco.

³¹ Kets de Vries (2011), p. 29.

3

CLIMATE AND CULTURE

*

BUILDING BLOCKS

Both culture and climate of an organization focus on how employees perceive, experience and make sense of their work environments.³² According to Edgar Schein both culture and climate are ‘building blocks for [organizational – GJvB] description and analysis.’³³ The concepts of culture and climate may have their roots in different academic traditions and disciplines, but both are about understanding psychological aspects of organizational practices and about shared understanding of organizational context.³⁴ Climate literature has its roots in Kurt Lewin’s field theory that states that it is possible to understand, predict and provide the basis for behavioural change of individuals and groups by constructing a ‘life space’ comprising the psychological forces influencing their behaviour at a given point in time.³⁵ According to the field theory, as Daniel Denison asserts, a phenomenon (like climate) can only be studied when the individual is analytically separate from a social context.

³² B. Schneider, M.G. Ehrhart, and W.A. Macey (2011a). ‘Organizational climate research. Achievement and the road ahead’, N.M. Ashkanasy, C.P.M. Wilderom, and M.F. Peterson (eds.), *Handbook of Organizational Culture and Climate*, SAGE, Thousand Oaks (CA), second edition, pp. 29–49.

³³ E.H. Schein (2000). ‘Sense and nonsense about culture and climate’, N.M. Ashkanasy, C.P.M. Wilderom, and M.F. Peterson (eds.), *Handbook of Organizational Culture and Climate*, SAGE, Thousand Oaks (Ca), pp. xxiii–xxx, p. xxiv.

³⁴ Ostroff, Kinicki, and Muhammad (2013), p. 643.

³⁵ B. Burnes, and B. Cooke (2013). ‘Kurt Lewin’s field theory. A review and re-evaluation’, *International Journal of Management Reviews*, Vol. 15, No. 4, pp. 408–425, esp. p. 409.

Individuals are either ‘agents’ or subjects of a social system, but they cannot be both.³⁶ The literature about organizational culture is grounded in two perspectives: the symbolic interaction perspective of George Herbert Mead and Clifford Geertz, and the social construction perspective of Peter Berger and Thomas Luckmann.³⁷ Both of these perspectives assume that an individual cannot be analytically separated from the environment and that members of social systems should be regarded as being agents and subjects at the same time.³⁸ These different theoretical foundations resulted in different perspectives on organizational psychological aspects and shared meaning of context. Climate research studies human behaviour at micro level; culture research does so at macro level.

Academic literature has concentrated largely on the question whether the concepts of culture and climate are different, identical, or related, primarily to emphasize differences (and similarities.)³⁹ Only recently, there is some focus on the concepts as being linked

³⁶ D. Denison (1996). ‘What is the difference between organizational culture and organizational climate? A native’s point of view on a decade of paradigm wars’, *The Academy of Management Review*, Vol. 21, No. 3, pp. 619–654, pp. 634–635.

³⁷ W.G. Ouchi and A.L. Wilkins (1985). ‘Organizational culture’, *Annual Review of Sociology*, Vol. 11, pp. 457–483. See: G.H. Mead (2015). *Mind, Self and Society*, University of Chicago Press, Chicago (first edition: 1934); C. Geertz (2017). *The Interpretation of Cultures*, Basic Books, New York, third edition (first edition: 1973); P.L. Berger and T. Luckmann (2011). *The Social Construction of Reality. A Treatise in the Sociology of Knowledge*, Open Road Media, New York (first edition: 1966).

³⁸ Denison (1996), pp. 634–635.

³⁹ Schein (2000); Denison (1996); R.L. Payne (2000). ‘Climate and culture: How close can they get?’, N.M. Ashkanasy, C.P.M. Wilderom, and M.F. Peterson (eds.), *Handbook of Organizational Culture and Climate*, SAGE, Thousand Oaks (Ca), pp. 163–176.

to provide an image of social structures within the organization.⁴⁰ But with all of this academic research, there is still much confusion about the two concepts. The meaning of the two concepts, for instance, is still not clear. In 1998, in a review of twenty-five years of research, Willem Verbeke, Marco Volgering, and Marco Hessels identified thirty-five different definitions for ‘organizational climate’ and fifty-four definitions for ‘organizational culture.’⁴¹ Even now, two decades later, all ambiguity has not been resolved, although there is one similarity that is always mentioned: ‘shared understanding’. According to Benjamin Schneider, both culture and climate are complementary concepts that reveal overlapping nuances in ‘the psychological life’ of an organization⁴², viewed from different perspectives.

The analysis of Verbeke, Volgering, and Hessels derived the core of both concepts to be ‘a reflection of the way people perceive ... the characteristics of their environment’ (for climate) and ‘the way things are done in an organizational unit’ (for culture.)⁴³ In such a characterization (perception versus routine), climate is viewed as a property of the individual and culture as a property of the organi-

⁴⁰ Schneider, Erhardt, and Macey (2011a); D.M. Zohar and D.A. Hofmann (2012). ‘Organizational culture and climate’, S.W.J. Kozlowski (ed.), *Oxford Library of Psychology. The Oxford Handbook of Organizational Psychology*, Vol. 1, Oxford University Press, Oxford, pp. 643–666.

⁴¹ W. Verbeke, M. Volgering, and M. Hessels (1998). ‘Exploring the conceptual expansion within the field of organizational behaviour. Organizational climate and organizational culture’, *Journal of Management Studies*, Vol. 35, No. 3, pp. 303–329.

⁴² B. Schneider (2000). ‘The psychological life of organizations’, N.M. Ashkanasy, C.P.M. Wilderom, and M.F. Peterson (eds.), *Handbook of Organizational Culture and Climate*, SAGE, Thousand Oaks (Ca), pp. xvii–xxi, esp. p. xix–xxi.

⁴³ Verbeke, Volgering, and Hessels (1998), pp. 319–320.

zation, which is (in a sense) much in line with the recognition of micro and macro levels in organizational behaviour research.⁴⁴

THE PROPERTY OF THE INDIVIDUAL AT MICRO LEVEL: ORGANIZATIONAL CLIMATE

Psychological and relational climates

Humans possess unconscious, deeply embedded, and stable patterns to deal with the environment and their own internal disposition, mostly called personality styles. Within these patterns four basic drives are, in different constellations and with different intensity, trying to find a balance in realizing personal well-being: the drives to acquire, learn, bond, and defend.⁴⁵ They explain a multiplicity of employee behaviours, because an individual may possess elements of many different patterns, each of which becomes active in different circumstances. One pattern, however, dominates and consistently characterizes many aspects of behaviour. These patterns are very difficult to change. When one pattern manifests itself to the extreme, it will seriously impair functioning of employees. Especially when this concerns organizational leaders, the organizational consequences can be serious.⁴⁶ Based on personality styles, employees, in a valuation process, perceive their organizational environment and make sense of it. This valuation is largely based on

⁴⁴ D. Glisson and L.R. James (2002). 'The cross-level effects of culture and climate in human service teams.' *Journal of Organizational Behavior*, Vol. 23, No. 6, pp. 767–794, esp. p. 769.

⁴⁵ P.R. Lawrence, and N. Nohria (2002). *Driven. How Human Nature Shapes our Choices*, Jossey-Bass, San Francisco, pp. 55–149.

⁴⁶ Kets de Vries (2011), pp. 94–96.

the primary socialization and assimilation processes (or, following Geert Hofstede: the ‘mental programming’ of the mind) in which an individual learns the conscious and unconscious basic characteristics, assumptions, values, norms, and ethics of his or her cultural environment.⁴⁷ A cognitive representation of organizational characteristics is interpreted based on this ‘programming’, the psychological contract, and the significance of the organizational environment for personal well-being. These perceptions are psychologically meaningful to individual employees. Psychological climate is, as stated above, rather an individual than an organizational attribute.

The psychological climate is extremely important because individual perceptions and valuations of the environment are just as important for behaviour and attitudes than the environment itself.⁴⁸ Individual factors and characteristics (like, for instance, bias) can generate different perceptions of the same environment for different individuals. There exists, for instance, a considerable variation in the perceptions of the environment among employees reporting to the same manager because the treatment of employees is different, due to their interpersonal relationship, differences in abilities, or involvement in the realization of organizational objectives. Personality styles are extremely important for these variations.⁴⁹ When

⁴⁷ G. Hofstede, G.J. Hofstede, and M. Minkov (2010). *Cultures and Organizations. Software of the Mind. Intercultural Cooperation and its Importance for Survival*, McGraw Hill, New York, third edition, pp. 4–7.

⁴⁸ S.P. Brown and T.W. Leigh (1996). ‘A new look at psychological climate and its relationship to job involvement, effort, and performance’, *Journal of Applied Psychology*, Vol. 81, No. 4, pp. 358–368; Kets de Vries and Miller (1986), pp. 266–267. The work Kets de Vries has done on dysfunctional leaders and organizations is an apt example for the importance of psychological phenomena for behaviour within organizations.

⁴⁹ Brown and Leigh (1996), p. 359.

employees largely agree in their perceptions of the environment and the way this environment affects them, these shared perceptions can be aggregated to describe their relational and, as another aggregation, their organizational climates.⁵⁰ These climates can be referred to as socially interactive contexts that emphasize the agreed upon and shared policies, procedures, and practices as well as the expected, supported, and rewarded behaviours and attitudes in a work environment and the meaning all those imply for the members of that context.⁵¹ For the relational climate, that work environment is a team, a work unit, or a place of work (or, in the informal structure of the organization, a social network). For the organizational climate, the work environment is the organization at large. The distinction between individual perceptions (psychological climate) and shared perceptions (relational and organizational climates) is widely accepted today.

Meaningfulness, safety, and availability

Shared employee perceptions, agreeing with policies, procedures, and practices, and involvement in realizing organizational objectives and performance can only be realized when the most important conditions of the psychological climate are accepted: psychological meaningfulness, safety, and availability, and when these conditions are aggregated into a relational climate. All three conditions are studied for a long time, but it was William Kahn in 1990 who revived the concepts in his ethnographic study about the deter-

⁵⁰ Ostroff, Kinicki, and Muhammad (2013), p. 652.

⁵¹ B. Schneider, M.G. Ehrhart, and W.H. Macey (2011b). 'Perspectives on organizational climate and culture', S. Zedeck (ed.), *APA handbook of industrial and organizational psychology, Vol. 1. Building and developing the organization*, American Psychological Association, pp. 373–414, esp. p. 373.

minants of work engagement and the process by which that comes into being.⁵²

Kahn defined psychological meaningfulness as ‘a feeling that one is receiving a return on investments of one’s self in a currency of physical, cognitive, or emotional energy’, and following this up with: ‘People experienced such meaningfulness when they felt worthwhile, useful, and valuable – as though they made a difference and were not taken for granted.’⁵³ Meaningfulness has been recognized as a very important and influential condition for employee behaviour long before Kahn used it in his conceptual model of engagement. The idea that employees have a need for a meaningful working environment was first introduced by psychologists and motivation theorists, like Frederick Herzberg, Douglas McGregor, and Abraham Maslow.⁵⁴ All those theorists emphasized that individual employees who do not believe their work to be meaningful will not be motivated to reach their potential. In Maslow’s hierarchy of needs theory, an individual’s higher order needs instigate a process to develop his or her potential in a manner that is personally

⁵² W.A. Kahn (1990). ‘Psychological conditions of personal engagement and disengagement at work’, *Academy of Management Journal*, Vol. 33, No. 4, pp. 692–724. For an overview of the history of these concepts: H. Jacobs (2013). *An Examination of Psychological Meaningfulness, Safety, and Availability as the Underlying Mechanisms linking Job Features and Personal Characteristics to Work Engagement*. FIU Electronic Theses and Dissertations, 904, Chapter 3, pp. 12–14, 18–86. Online source, retrieved at September 12, 2020 from: <https://dx.doi.org/10.25148/etd.FI13080518>.

⁵³ Kahn (1990), pp. 703–704.

⁵⁴ S.R. Dinibutun (2012). ‘Work Motivation. Theoretical framework’, *Journal on GSTF Business Review*, Vol. 1, No. 4, pp. 133–139. See also: M. Kovach (2018). ‘A review of classical motivation theories. Understanding the value of locus of control in higher education’, *Journal of Interdisciplinary Studies in Education*, Vol. 7, No. 1, pp. 34–53.

fulfilling. In short, if employees perceive their work to be meaningful for themselves, they are motivated to become more engaged in it. In 2011, Zhen Jiao Chen, Xi Zhang, and Douglas Vogel found that meaningfulness had the largest positive effect on work engagement in comparison to the other psychological conditions.⁵⁵

Psychological safety is the ‘sense of being able to show and employ one's self without fear of negative consequences to self-image, status, or career.’⁵⁶ Within organizations, it describes perceptions of the consequences of taking interpersonal risks in the work environment.⁵⁷ Kahn argued (based on statistics) that employees perceive the benefit of the doubt when interpersonal relationships within a team (or organization) are characterized by trust and respect, leading to personal engagement.⁵⁸ In short, if individual employees experience psychological safety, they will contribute to a ‘shared enterprise’,⁵⁹ will share information and knowledge,⁶⁰ will

⁵⁵ Z.J. Chen, X. Zhang and D. Vogel (2011). ‘Exploring the underlying processes between conflict and knowledge sharing. A work-engagement perspective’, *Journal of Applied Social Psychology*, Vol. 41, No. 5, pp. 1005–1033.

⁵⁶ Kahn (1990), p. 708.

⁵⁷ A.C. Edmondson (1999). ‘Psychological safety and learning behavior in work teams’, *Administrative Science Quarterly*, Vol. 44, No. 2, pp. 350–383, p. 354.

⁵⁸ Kahn (1990), pp. 708–709.

⁵⁹ A.C. Edmondson and Z. Lei (2014). ‘Psychological safety. The history, renaissance, and future of an interpersonal construct’, *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 1, No. 1, pp. 23–43, p. 24.

⁶⁰ E. Siemsen, A.V. Roth, S. Balasubramanian, and G. Anand (2009). ‘The influence of psychological safety and confidence in knowledge on employee knowledge sharing’, *Manufacturing & Service Operations Management*, Vol. 11, No. 3, pp. 429–447.

suggest improvements,⁶¹ and will be productive members of a team leading to team learning and performance.⁶²

Psychological availability is ‘the sense of having the physical, emotional, or psychological resources to personally engage at a particular moment’ in the role and activity at work. This condition measures ‘how ready people are to engage, given the distractions they experience as members of social systems.’⁶³ Employees who are psychologically available are motivated to invest resources into role performances at work. When resources are lacking, motivation for role performance is low.⁶⁴ They will, then, become distant towards their roles and their co-workers, which results in unavailability for role performance. Research regarding recovery from work, a balance between private and business demands, and using stress coping strategies is closely related to psychological availability research.⁶⁵ When employees perceive psychological meaningfulness, safety, and availability, they will experience their psychological contract as fitting their needs.

⁶¹ J. Liang, C.I.C. Farh, and J.-L. Farh (2012). ‘Psychological antecedents of promotive and prohibitive voice. A two-wave examination’, *Academy of Management Journal*, Vol. 55, No. 1, pp. 71–92.

⁶² For team learning: Edmondson (1999), esp. pp. 375–378. For performance: J. Schaubroeck, S.S.K. Lam, and A.C. Peng (2011). ‘Cognition-based and affect-based trust as mediators of leader behavior influences on team performance’, *Journal of Applied Psychology*, Vol. 96, No. 4, pp. 863–871.

⁶³ Kahn (1990), p. 714.

⁶⁴ E.R. Crawford, B.L. Rich, B. Buckman, and J. Bergeron (2014). ‘The antecedents and drivers of employee engagement’, C. Truss, R. Delbridge, E. Soane, K. Alfes, and A. Shantz (eds.), *Employee Engagement in Theory and Practice*, Abingdon, Routledge, Chapter 3, pp. 57–81.

⁶⁵ Jacobs (2013), pp. 77–81.

Sharing perceptions

The individual employee perceptions of events, policies, procedures, and behaviours in his or her work environment (especially as a result of psychological meaningfulness, safety, and availability) as well as the perceptions of psychological contracts, affect the relational climate between the co-workers in their formal teams, units, or places of work and their informal social networks, for better or for worse. The more perceptions are shared, the more a work climate will be created and developed that reflects quality in interpersonal relations in which employees genuinely care about one another.⁶⁶ Such a climate affects, in return, individual perceptions positively and stimulates employee behaviour to be in accordance with the behaviours that are valued, rewarded, and expected in the work environment. When employees perceive concern about their well-being in their team, work unit, social network, or place of work (through emphasis on fairness, ethics, trust, and diversity), they are more willing to participate in efforts to realize team tasks, and to focus on strategic outcomes that are of value to the organization at large.⁶⁷ This is an important reason why leaders, as key agents and role models for organizational policies and practices, try to create and maintain such a climate.⁶⁸ The overall belief is that benevolent

⁶⁶ E.E. Boyatzis, and K. Rochford (2020). 'Relational climate in the workplace. Dimensions, measurement, and validation', *Frontiers in Psychology*, Vol. 11. Article 85, pp. 1–15, and G. Bollmann and F. Krings (2016). 'Workgroup climates and employees' counterproductive work behaviors. A social-cognitive perspective', *Journal of Management Studies*, Vol. 53, No. 2, pp. 184–209.

⁶⁷ Schneider, Ehrhart, and Macey (2011ab).

⁶⁸ A. Christensen-Salem, F.O. Walumbwa, M.B. Babalola, L. Guo, and E. Misati (2020). 'A multilevel analysis of the relationship between ethical leadership and ostracism. The roles of relational climate, employee mind-

relational climates aggregate an organizational climate that will be best for organizational performance.⁶⁹

That may be true, but in organizations, there is not just one work environment. There are many teams, work units, social networks, or places of work and the relational climate may differ between them, just as perceptions of organizational events, policies, procedures, and expected behaviours. There are even differences in perception of the relational climate, the team or unit leader, or policies and practices between co-workers of *the same team or work unit*, possibly leading to counterproductive work behaviours.⁷⁰ Besides the individual perceptions of psychological meaningfulness, safety, and availability, and the individual or shared perceptions of the relational climate of the team or work unit that may lead to differences between or within them, the way individuals define their social identity may, over time, also lead to changes in the relational climate of the work environment. Individuals define themselves in relation to their social environment and identify with others based on perceived social similarity. Changes in this identification and these perceptions of social similarity may lead to negative attitudes towards team leaders and co-workers, the team or work unit itself, and, as a result, the organization at large.⁷¹ One single negative employee might have deleterious effects on the functioning of an entire group. In such a situation, there is, compared to other

fulness, and work unit structure', *Journal of Business Ethics*. Online source, retrieved at September 12, 2020 from: <https://doi.org/10.1007/s10551-020-04424-5>.

⁶⁹ Boyatzis and Rochford (2020), p. 1.

⁷⁰ Brown and Leigh (1996), p. 359; Bollmann and Krings (2016).

⁷¹ H. Liao, A.A. Joshi, and A. Chuang (2004). 'Sticking out like a sore thumb. Employee dissimilarity and deviance at work', *Personnel Psychology*, Vol. 57, No. 4, pp. 969–1000, esp. p. 974.

teams, a thirty to forty per cent difference in team performance, there are more arguments and fights, relevant information will not be shared, and bad behaviour will be taken on by co-workers.⁷² When an organizational leader (or more of them) show such behaviour, the consequences for the organization could be disastrous.⁷³ There is a reason climate has been defined as the property of the individual and not of the organization.

Uncertain aggregation

Relational climates, the socially interactive contexts of teams, work units, social networks, or places of work, aggregate into the organizational climate, the socially interactive context of the organization at large. In this aggregation, shared perceptions of policies, procedures, and practices between teams, work units, and places of work, as well as the expected behaviours and attitudes within those work environments, are geared towards common goals and outcomes and towards organizational performance.⁷⁴ It is an uncertain aggregation. Because of the (possibly large) differences in relational climate between teams, work units, social networks, or places of work, the level of shared perceptions may be weak. Hence, the aggregation into an organizational climate does not mean there will not be varying perceptions and behaviours within and between teams, work units, or places of work when faced with organizational situations or problems in relation to environmental condi-

⁷² W. Felts, T.R. Mitchell, and E. Byington (2006). 'How, when, and why bad apples spoil the barrel. Negative group members and dysfunctional groups', *Research in Organizational Behavior*, Vol. 27, pp. 175–222.

⁷³ Kets de Vries (2011), pp. 5–25; Kets de Vries and Miller (1984); and, recently, M.F.R. Kets de Vries (2019). *Down the Rabbit Hole of Leadership. Leadership Pathology in Everyday Life*, Palgrave Macmillan, Cham.

⁷⁴ Schneider, Ehrhart, and Macey (2011ab).

tions and policies, procedures, and practices. There will be shared perceptions between the different relational climates within an organization, but strengthening climate on the level of the organization at large is continuously necessary. It is at this level that leadership is important and the consequences of dysfunctional, narcissistic, or neurotic leadership behaviour so dire. Leaders need to inspire managers in the organization at large to be role models for desired behaviour, to be advocates for organizational policies, procedures and desired practices, and to be inspirators and mediators for stronger and benevolent relational climates.⁷⁵ Organizations (and teams and work units) do have stronger climates when leaders and managers are communicating clearly, are more straightforward, have less variable behaviour patterns, are geared towards interactivity, are sharing knowledge and team perceptions within and between teams and work units, and are transformational.⁷⁶ Leaders of organizations need to influence the relational and psychological climates within their organizations top-down by promoting and inspiring organizational groups and individuals to show behaviour that strengthens the aggregated perceptions at the organizational level, to promote policies, procedures, and practices that are shared within the organization, to develop new strategies, policies, procedures, and structures that are based on the existing shared perceptions, to share mental models, and to positively influence team and individual performance. They need to do this consistently and coherently. Leadership behaviours are important in shaping organizational climate as an aggregation and creating a positive environ-

⁷⁵ I. Sabiha, E. Çakmak, and E. Karadağ (2015). 'The effect of leadership on organizational climate', E. Karadağ (ed.), *Leadership and Organizational Outcomes. Meta-Analysis of Empirical Studies*, Cham, Springer, Chapter 8, pp. 123–141.

⁷⁶ Schneider, Ehrhart, and Macey (2011ab).

ment.⁷⁷ It is another concept that helps leaders in ‘guiding’ climates and creating positive work environments: organizational culture.

THE PROPERTY OF THE ORGANIZATION AT MACRO LEVEL: ORGANIZATIONAL CULTURE

Characterization

The concept of culture developed out of the study of ethnic and national differences in sociology, anthropology, and social psychology. Organization science uses the concept to study organizations as platforms constructing and expressing meanings through social interactions.⁷⁸ As it became part of management theory, the concept was used as a tool to achieve managerial effectiveness and control.⁷⁹ The theory on culture is fairly inconsistent, probably because researchers of (organizational) culture represent such distinct disciplines. They use different epistemologies and methods to investigate organizational culture. As mentioned before, Verbeke, Volgering and Hessels derived the core of the concept of organizational culture to be ‘the way things are done in an organizational unit.’⁸⁰

Although there seems to be agreement on the core of the concept, there is no agreement on what organizational culture is. For

⁷⁷ Sabiha, Çakmak, and Karadağ (2015), p. 125.

⁷⁸ A.M. Wilson (2001). ‘Understanding organisational culture and the implications for corporate marketing’, *European Journal of Marketing*, Vol. 35, No. 3–4, pp. 353–367.

⁷⁹ S.R. Barley, G.W. Meyer, and D.C. Dash (1988), ‘Cultures of culture. Academics, practitioners, and the pragmatics of normative control’, *Administrative Science Quarterly*, Vol. 33, No. 1, pp. 24–60.

⁸⁰ Verbeke, Volgering, and Hessels (1998), pp. 319–320.

every definition, there is a dissenting view. Culture is mostly defined in terms of cultural manifestations, shared by most members of that culture and as that ‘which is contextually unique.’⁸¹ There is variety in approaches when operationalizing culture, for instance examining meanings given to organizational stories, existing rituals, jargon, humour, behaviour, and organizational attributes like structure and the layout of workplaces.⁸² Sometimes even, there are interpretations that disagree with the little bit of agreement there is: some manifestations may not be shared or may not be unique. It is quite clear that organizational culture is an extremely complex concept that is very difficult to grasp.

A characterization of organizational culture is that: ‘Over time, organizational members develop a system of shared assumptions, values, underlying beliefs, and behavioral norms that have been shown to help the organization with external adaptation and internal integration.’⁸³ Two important elements in this definition of culture are (1) that the concept of culture is about ‘shared’ assumptions, values, beliefs, and behavioural norms, and (2) that culture is a system (or a pattern⁸⁴) that has been developed ‘over time’. Culture develops historically, leaves footprints that characterize that development, and, because it worked well enough, it is considered valid. Andrew Brown correctly stated that ‘culture can only be fully understood as the product of historical process.’⁸⁵

⁸¹ J. Martin (2002). *Organizational Culture. Mapping the Terrain*, Thousand Oaks (Ca), SAGE, p. 91.

⁸² Martin (2002), pp. 55–92.

⁸³ Zohar and Hofmann (2012), p. 654.

⁸⁴ E.H. Schein (with P. Schein) (2017). *Organizational Culture and Leadership*, John Wiley & Sons, Hoboken (NJ), fifth edition, p. 21.

⁸⁵ A. Brown (1995). *Organisational Culture*, Pitman, London, p. 26.

Edgar Schein defines culture as ‘the accumulated shared learning’ of the organization, which is an apt description of this historical process that brings ‘culture’ into being.⁸⁶ According to Schein, the beliefs, values, and desired behaviours that came into being at the start of the organization and made it successful, become non-negotiable, turn into stable, basic assumptions and drop out of awareness. They serve as the source of the way things are done. Schein calls these beliefs, values, desired behaviours, and assumptions the ‘cultural DNA.’⁸⁷ This ‘cultural DNA’, still according to Schein, defines the organizational ‘reason to be’. It allows for sensemaking of daily activities and work. Ideally, it realizes overall acceptance of beliefs, values, and accompanying behavioural norms. It defines the organizational identity.⁸⁸ This identity, these historically grown,

⁸⁶ Schein (2017), p. 21.

⁸⁷ Schein (2017), p. 22.

⁸⁸ Schein (2017), p. 21. Hofstede (2010) defines culture as: ‘the collective programming of the mind that distinguishes the members of one organization from others’ (p. 344), which is a diversion of his overall definition of culture (p. 6). Schein’s ‘basic assumptions’ can be compared with Hofstede’s ‘mental models’, although they are not the same. Models indicate what individual reactions are likely and understandable, given one’s experiences, education and past learning. The sources of these models lie within the social environments in which one grew up and collected one’s life experiences (p. 5). Hofstede’s work primarily refers to national culture, because that is, as he contends, more deeply rooted than organizational culture, and much more determinative of how people behave. It should be mentioned here that, following Hofstede’s (2010) theory, the hypothesized strong role of national culture as a constraint on organizational culture needs to be reconsidered. Most of the variance in organizational culture is not explained by country differences or by differences in national cultures: B. Gerhart (2009). ‘How much does national culture constrain organizational culture?’, *Management and Organization Review*, Vol. 5, No. 2, pp. 241–259.

shared assumptions, values, beliefs, and behavioural norms ('culture') are taught to new members of the organization in a process of (secondary) socialization and assimilation as the 'correct' way to perceive, think, feel, and behave within an organization.⁸⁹ It impresses new employees of 'the way things are done' in a specific organization. However, they are partly socialized in teams, work units, or places of work, and there may be differences in 'the way things are done' in those different units.⁹⁰ As we have seen before in the description of the second proposition of organizational behaviour ('organizations are social systems'), team expectations are communicated within, and structure, hierarchy, and norms come into being (and are agreed upon) to accomplish objectives. Depending on the strength of socialization and assimilation (and the consistency of leadership behaviour), team structure, hierarchy, (behavioural) norms, values, and assumptions are, more or less, aligned with organizational structure, hierarchy, (behavioural) norms, values, and assumptions desired by the leadership of the organization.

⁸⁹ J. Van Maanen and E.H. Schein (1979). 'Toward a theory of organizational socialization', B.M. Staw and L.L. Cummings (eds.), *Research in Organizational Behavior*, JAI Press, Greenwich (Ct), I, pp. 209–264. See also: Hofstede (2010): 'software of the mind', 'programming' and 'mental models' refer more to primary socialization and assimilation, although it is possible, over time, to adapt existing mental models to the organizational environment in a process of secondary socialization and assimilation ('learning'). Also: T.N. Bauer, T. Bodner, B. Erdogan, D.M. Truxillo, and J.S. Tucker (2007). 'Newcomer adjustment during organizational socialization. A meta-analytic review of antecedents, outcomes, and methods', *Journal of Applied Psychology*, Vol. 92, No. 3, pp. 707–721.

⁹⁰ G. Chao (2012). 'Organizational socialization. Background, basics, and a blueprint for adjustment at work', S.W.J. Kozlowski (ed.), *The Oxford Handbook of Organizational Psychology*, I, Oxford University Press, Oxford, pp. 579–614.

There may be, however, (large) differences between teams and between teams and organization.⁹¹

Levels of organizational culture

Organizational culture can be analysed at different levels, the degrees to which a cultural phenomenon is visible and/or observable. These levels have been conceptualized in different ways, but the most referred to framework is that of Edgar Schein, first developed in the 1980s. Three levels range from tangible manifestations that are visible and touchable ('artefacts') to unconscious assumptions ('underlying (basic) assumptions'). In between are espoused beliefs, values, norms, and behavioural rules that are used by members of the culture to depict their culture to themselves and others ('espoused values'). Artefacts represent culture's 'outer layer', including rituals, language, myths, dress, and the organization of space. They are accessible to outsiders but essentially quite ambiguous in the representation of underlying meaning: although looking the same, across organizations their ascribed meaning(s) differ. The second level concerns espoused values, values organizational management proclaims to be core to the organization but which may or may not reflect the organizational 'values-in-use.'⁹² The underlying assumptions indicate why employees go about their working lives as they do, and are so ingrained that they cannot be easily articulated, and, thus, not easily learned.⁹³ Mentoring by colleagues is probably the most effective way to learn and understand these assumptions, but (because newcomers learn these assumptions in their teams, work

⁹¹ Gibson, Ivancevich, Donnelly, and Konopaske (2012), pp. 11–12, 234.

⁹² As an analogy to 'espoused theory' and 'theory-in-use', as stated by C. Argyris and D. Schön (1974). *Theory in Practice. Increasing Professional Effectiveness*, Jossey-Bass, San Francisco.

⁹³ Schein (2017), pp. 28–34.

units, or places of work) this means there may be differences in their interpretation between the different work environments.

Mary Jo Hatch argues that Schein's framework would be more useful if it were combined with ideas drawn from symbolic-interpretive perspectives, with a larger focus on symbols and symbolic behaviour. She proposed a systems model to explain how artefacts, espoused values, basic assumptions, and symbols dynamically interact to influence organizational sensemaking, based on four processes: manifestation, realization, symbolization, and interpretation. These processes spin the 'web of significance' in which artefacts are shaped and imbued with symbolic significance, largely drawn from past experiences. The artefacts convey meaning into the future. In the artefacts, the material forces of culture are combined with the contextualized forces of meaning.⁹⁴ The processes are closely related to what Karl Weick called 'organizational sensemaking.'⁹⁵ Geert Hofstede introduced his (in essence) two level (tangible/intangible)

⁹⁴ M.J. Hatch (1993). 'The dynamics of organizational culture', *The Academy of Management Review*, Vol. 18, No. 4, pp. 657–693 and M.J. Hatch (2011). 'Material and meaning in the dynamics of organizational culture and identity with implications for the leadership of organizational change', N.M. Ashkanasy, C.P.M. Wilderom, and M.F. Peterson (eds.), *Handbook of Organizational Culture and Climate*, SAGE, Thousand Oaks (Ca), second edition, pp. 341–358. See also: L.R. Frey (2004). 'The symbolic-interpretive perspective on group dynamics', *Small Group Research*, Vol. 35, No. 3, pp. 277–306. Hatch (2011) (p. 343) uses the term 'web of meaning' and refers for this to Geertz (1973). On p. 5, Geertz states, referring to Max Weber, 'man is an animal suspended in webs of significance he himself has spun' and defines culture as being those webs and the analysis of it 'an interpretive (science – GJvB) in search of meaning'. I prefer to use the term Geertz used.

⁹⁵ K.E. Weick (1995). *Sensemaking in Organizations*, SAGE, Thousand Oaks (Ca) (first edition: 1969)

‘onion’ model of the manifestations of organizational culture in 1990, of which symbols, heroes, and rituals are the tangible part (called practices) and values the intangible part.⁹⁶ The ‘onion model’ is suitable for a basic education in culture, but has essential difficulties for using it as a theoretical foundation for research.⁹⁷

Perspectives on organizational culture

Joanne Martin recognized three different perspectives in research on organizational culture, which, in her opinion, should be used simultaneously. The *integration perspective* is that there is one organizational culture, shared by all. Ambiguity and conflict are ignored or seen as something to fix. Using this perspective, culture is researched and described as ‘a solid monolith that is seen the same way by most people, no matter from which angle they view it’ and can be ideally characterized as ‘an oasis of harmony and homogeneity.’⁹⁸ This perspective has dominated research on organizational culture.⁹⁹ The *differentiation perspective* has its focus on the inevitability of organizational conflict and puts ‘lack of consensus’ at the front in the understanding of culture. It recognizes subcultures in organizations that, although nested within the organizational cul-

⁹⁶ G. Hofstede, B. Neuijen, D. Daval Ohayv, and G. Sanders (1990). ‘Measuring organizational cultures. A qualitative and quantitative study across twenty cases’, *Administrative Science Quarterly*, Vol. 35, No. 2, pp. 286–316. Hatch (1993) does not mention Hofstede’s model at all for the inclusion of symbols in the levels (or manifestations) of organizational culture.

⁹⁷ For an overview of these difficulties see: T. Richter (2016). ‘A conceptual culture model for design science research’, *International Journal of Business and Social Research*, Vol. 6, No. 3, pp. 1–19.

⁹⁸ Martin (2002), resp. p. 94 and pp. 95–101.

⁹⁹ L.C. Harris and E. Ogbonna (1998). ‘A three-perspective approach to understanding culture in retail organizations’, *Personnel Review*, Vol. 27, No. 2, pp. 104–123, p. 107.

ture, may exist in harmony, independent, or in conflict. Within these subcultures, people share (largely) identical perceptions and meanings of the same events. These perceptions and meanings may differ between subcultures within the organization. These subcultures can be identified with the 'relational climates' in climate research. Martin uses a metaphor to characterize this dimension: 'subcultures are like islands of clarity in a sea of ambiguity.'¹⁰⁰ The *fragmentation perspective* focuses on ambiguity and denies sharing is necessary, even in subcultures. There is no single overarching set of shared assumptions, but there are multiple perceptions possible for the same events, in the organization at large and (thus) also in its subcultures.¹⁰¹ It views organizations as being in constant flux and is concerned 'with understanding the processes for constructing and re-constructing organizational reality.'¹⁰² Many organizational culture studies restrict themselves to one of these perspectives. The much lauded bestseller of Tom Peters and Robert Waterman Jr, *In Search of Excellence*¹⁰³, for instance, rests on the mistaken assumption that culture consists of homogeneous, monolithic, and organization-wide shared meanings, with no consideration for potential subcultures or organizational dissension.¹⁰⁴ Martin argued that any

¹⁰⁰ Martin (2002), p. 94. For the perspective see pp. 101–104.

¹⁰¹ Martin (2002), p. 94. For the perspective see: pp. 104–108.

¹⁰² Harris and Ogbonna (1998), p. 108.

¹⁰³ T.J. Peters and R. Waterman Jr (1982). *In Search of Excellence*, Harper & Row, New York.

¹⁰⁴ As stated in: Wilson (2001), p. 358. The same can be said of Hofstede (2010). Although he recognizes the fact there can be subcultures within organizations, his interpretation of organizational culture is still largely along the line of the integration perspective. In the 561 pages of Hofstede (2010), the word 'subculture' is mentioned only ten times and a discussion of the concept is missing.

culture contains elements that can be understood only when all three perspectives are used.¹⁰⁵ On some issues, there may be organization-wide consensus, on other issues there is consensus within certain subcultures, and for the remainder of issues there is ambiguity. But, as Schein convincingly states, there has to be a core set of beliefs, values, norms, assumptions, and behavioural rules that are organization-wide accepted and shared, otherwise organizations would not exist and/or function.¹⁰⁶ Hence, integration may occur, but within the midst of inconsistencies, ambiguities, conflicts, disruption, and dissolution.¹⁰⁷ Martin's perspectives are widely accept-

¹⁰⁵ Martin (2002), pp. 120–122.

¹⁰⁶ Schein (2017), pp. 102–119.

¹⁰⁷ A much-studied subject are typologies of organizational culture. They are used to explain differences in a homogeneous interpretation of culture. As Schein (2017), p. 209, correctly states: 'Typologies ... introduce a bias toward ... the 'integration perspective' in culture studies'. There are many typologies of organizational culture. S.A. Sarki, R.B. Adulhamid, and W.Y.W. Mahmood (2017). 'Review on organizational culture typologies', *Journal of Applied Sciences & Environmental Sustainability*, Vol. 3, No. 8, pp. 54–64, recognizes fifteen different typologies, and isn't complete. K.S. Cameron and R.E. Quinn (2011). *Diagnosing and Changing Organizational Culture. Based on the Competing Values Framework*, John Wiley & Sons, Reading, found that most organizations develop a dominant cultural style: *Clan* (collaboration), *Adhocracy* (creation), *Hierarchy* (control), and *Market* (compete). Their typology is most commonly used. 'More than 80% of the several thousand organizations we have studied have been characterized by *one or more* (my emphasis – GJvB) of the culture types identified by the framework. Those that do not have a dominant culture type either tend to be unclear about their culture or emphasized the four different cultural types nearly equally', p. 52. Even highly effective organizations tend to develop (at the same time) subunits that represent each of these four culture types. They note that *mostly several of the culture types dominate an organization*. Typologies are always based on 'pure' constellations. But reality is

ed and used in research, but her interpretation is not without criticism. Roy Payne, for instance, states that Martin does not consider the possibility of multi-directional perspectives, with movements in all directions in which changes occur in a shared understanding of and satisfaction with overall culture. That means that fragmented cultures can become differentiated or integrated, and that the three perspectives may vary at different times.¹⁰⁸

Embedding and reinforcing organizational culture

According to Cheri Ostroff, Angelo Kinicki, and Rabiah Muhammad, culture emerges, aside from learning, from sensemaking processes of the regulatory behaviours of leaders, of employees, and from leader-employee interactions.¹⁰⁹ That is, especially in management literature about leadership and the emergence and change of organizations and culture, a very popular opinion. Of course, it is possible that the interactions between leaders and employees stimulate consensus about values, beliefs, and assumptions, identify gaps between norms, and clarify expectations of desired behaviour.¹¹⁰

much more complicated, and mixes of most recognized types are quite common. Most often, more types are normal at the same time and 'dominant types' are more the exception than the rule. Typologies can be useful when comparing many organizations, but can be useless when trying to understand one particular organization.

¹⁰⁸ R.L. Payne (2001). 'A three-dimensional framework for analyzing and assessing culture/climate and its relevance to cultural change', C.L. Cooper, S. Cartwright, and P.C. Earley (eds.), *International Handbook of Organizational Culture and Climate*. John Wiley & Sons, Chichester, pp. 107–122; A. Kappos and S. Rivard (2008). 'A three-perspective model of culture. Information systems, and the development and use', *MIS Quarterly*, Vol. 32, No. 3, pp. 601–634.

¹⁰⁹ Ostroff, Kinicki, and Muhammad (2013), pp. 660–661.

¹¹⁰ Ostroff, Kinicki, and Muhammad (2013), pp. 660–661.

But as climate research quite clearly shows, model behaviour will not be automatically adopted by employees. It will be perceived and interpreted by (groups of) employees based on psychological and/or relational climates, on the different perspective of culture that they may be experiencing, the mental models they share, their psychological contracts, and/or on the managerial corrective consequences of negating desired behaviour. When the model behaviour as shown by organizational leadership is not aligned with the shared mental models in relational climates or the espoused beliefs and/or basic assumptions that in teams, work units, or places of work are believed to be part of organizational culture and, hence, does not make sense, confusion, ambiguity, and resistance will be the result.¹¹¹

It is especially at the level where relational climates grow based on the shared perceptions of the members that the culture-embedding and reinforcing mechanisms, defined by Schein, can be used by organizational leaders to influence relational climates and/or subcultures to be (more) aligned with the assumed organizational values, beliefs, and assumptions, and aggregate into an organizational climate that corresponds with those values, beliefs, and assumptions.¹¹² Schein called these (much used and cited) mechanisms ‘visible artifacts of the emerging culture’ and that ‘they directly create what would typically be called the ‘climate’ of the organization.’¹¹³ Both assertions are doubtful. The mechanisms are artefacts of what

¹¹¹ P. Fleming (2005). ‘Workers’ playtime? Boundaries and cynicism in a ‘culture of fun’ program’, *Journal of Applied Behavioral Science*, Vol. 41, No. 3, pp. 285–303: When management tried to form a warm and personal spirit, many employees interpreted this as a way to change the company into a kind of kindergarten and resisted such a change. See for the possible results of such behaviour also: Kets de Vries (2011), *passim*.

¹¹² Schneider, Ehrhart, and Macey (2011b), p. 390.

¹¹³ Schein (2017), p. 140.

leaders think organizational culture *should be*, not of what organizational culture *is*.¹¹⁴ The mechanisms also do not create the climate.¹¹⁵ They can (more or less) stimulate the subcultures (the relational climates of teams, work units, or places of work) to exhibit artefacts, espoused beliefs (values, norms, and behavioural rules), and the assumptions that organizational leaders think should be exhibited or that have historically been shared as ‘the way things are done’ in an organization.

According to Schein, these mechanisms allow for the creation, maintaining, and altering of organizational culture.¹¹⁶ Michelle Gannon, Jim Donegan, and Guy Rotondo state explicitly that Schein’s

¹¹⁴ M. Alvesson, and S. Sveningsson (2015). *Changing Organizational Culture. Cultural Change Work in Progress*, Routledge, London and New York, p. 44.

¹¹⁵ The idea that culture creates ‘the climate of the organization’ is widespread in literature. It neglects the effects of psychological climate, psychological contracts, and the background and experiences of employees on creation and maintenance of relational climates within organizations. It neglects the *bottom-up* effects of organizational climate and exaggerates the effects of the *top-down* influences of the culture-embedding mechanisms. It neglects the first proposition for organizational behaviour mentioned before: organizational behaviour follows the principles of human behaviour. It is not the other way around, although it certainly *influences* human behaviour.

¹¹⁶ Schein (2017), pp. 138–152. There are six primary culture-embedding mechanisms and six reinforcing and stabilizing mechanisms. When all twelve mechanisms are implemented *in a consistent and coherent manner* then, *over time*, core assumptions, values, and beliefs will become shared among employees. Inconsistency leads to ambiguity, diverse perceptions, and, potentially, subcultures. To ‘quickly’ get assumptions, values, beliefs and desired behaviour embedded and perpetuated is to recruit and promote members who resemble present members in style, assumptions, values, and beliefs and excommunicate people who don’t.

‘most important contribution’ is ‘explicating how leaders create cultural change.’¹¹⁷ This is incorrect, though a very popular opinion within management literature. Schein *does not* explain how to change culture, he explains how to *embed* and *reinforce* culture. Schein states that founders or organizations do have a strong impact on the formation of organizational (climate and) culture at its earliest stages. They bring others in organizational leadership positions that are like themselves.¹¹⁸ The initially embedded assumptions, values, and beliefs are likely to persist for a long time, as they become accepted and part of the evolving culture (and the existing relational climates) by means of collective learning and reinforcement.¹¹⁹ Schein is, however, very clear that ‘the likelihood of new leaders becoming cultural change agents declines as the organization matures’ and that ‘the socialization process then begins to reflect what has worked in the past, not what may be the primary agenda of a new leader coming in.’¹²⁰ Schein does not seem to believe in the possibilities of his mechanisms for leaders to essentially change organizational culture. Cultural changes are very difficult to realize because they are the result of a historical process. There will be emphasis on retaining what is/was useful and good about the organiza-

¹¹⁷ M. Ganon, J. Donegan, and G. Rotondo (2017). ‘Embedding values in corporate culture. Applying Schein’s organizational theory to Lehman Brothers’, *International Journal of Business & Applied Sciences*, Vol. 6, No. 1, pp. 20–33, p. 23.

¹¹⁸ Schein (2017), pp. 102–119.

¹¹⁹ Schein (2017), p. 154.

¹²⁰ Schein (2017), p. 152. Martin (2002), p. 124, accepts the assumption ‘that leaders exercise a moderate influence on some meanings and values in certain circumstances.’ She states that organizational leaders ‘will have limited impact and will typically be reinterpreted so that intended and received meanings may not overlap.’

tion.¹²¹ Organizational history, however, patterns and reflects the way organizations most probably will react towards change or resistance to change and gives to organizational leaders a possibility to influence the future,¹²² using ‘everyday re-framing to ‘culturally seduce’ their employees.¹²³

Everyday re-framing

Mats Alvesson and Stefan Sveningsson agree with Schein that it is doubtful that organizational leadership has the possibility to change culture in its ‘deeper’ levels. They state that the only effect-

¹²¹ B. Schneider and K.M. Barbera (2014). ‘Summary and conclusion’, B. Schneider and K.M. Barbera (eds.), *The Oxford Handbook of Organizational Climate and Culture*, Oxford University Press, Oxford, pp. 679–688. See also: J.R. Katzenbach, I. Steffen, and C. Kronley (2012). ‘Cultural change that sticks’, *Harvard Business Review*, Vol. 90, No. 7, pp. 1–9. The fact that initially created cultures are persistent and very difficult to change agrees with organizational theories that refer to organizations as ‘historical machines’ built on self-made structures and processes. These ‘machines’ cannot easily be revised once established: once an established organization has adopted routines it becomes very difficult, if not impossible, to overcome them. Organizations are structurally inert because of the structures that have been adopted in the past. See for this: H. von Foerster (1984). ‘Principles of self-organization in a socio-managerial context’, H. Ulrich and G.J.B. Probst, *Self-Organization and Management of Social Systems*, Springer, Heidelberg, pp. 2–24, and N. Luhmann, D. Baecker, and R. Barrett (2018). *Organization and Decision*, Cambridge University Press, Cambridge, pp. 49, 186. Such a historical understanding of organizations fits into modern and postmodern organization theories: J. Sydow, G. Schreyögg, and J. Koch (2009). ‘Organizational path dependence. Opening the black box’, *Academy of Management Review*, Vol. 34, No. 4, pp. 689–709.

¹²² Brown (1995), chapter 2, pp. 41–82.

¹²³ A. Pullen (2006). *Managing Identity*, Palgrave MacMillan, Basingstoke, New York, p. 50.

ive way of changing ‘culture’ is by re-framing everyday values and meanings not directly related to people’s orientations. ‘Everyday re-framing’ is a ‘weaker’ version of cultural change without the authority, formal power and resources of an organizational project. It is realized in ‘local’ initiatives driven by one or a few senior actors (managers, informal authorities, or small groups of people). It does not presuppose understanding associated with trends in society. It is incremental and informal, not signalled with distinct activities to accomplish a predefined ideal. It is about pedagogical leadership in which an actor exercises a subtle influence through the renegotiation of meaning. It is anchored in interactions, communication, and relations between people.¹²⁴ This re-framing concerns change of values and meanings in an informal way, using new or existing informal structures of the organization: social networks. This view of changing organizational cultures is close to the views expressed by Richard Seel and Jim MacQueen, both of them interpreting organizational culture as a complex adaptive system, in which control is dispersed and decentralised and where behaviour is the result of many decisions made constantly by individual agents.¹²⁵ Even using re-framing or interpreting organizational culture as a complex adaptive system, changing culture will take years, as Philip Kotter

¹²⁴ Alvesson and Sveningsson (2015), pp. 52–53. For ‘everyday re-framing’ also: M. Alvesson (2002). *Understanding Organizational Culture*, SAGE, London, Thousand Oaks (Ca), pp. 181–186.

¹²⁵ R. Seel (2000). ‘Culture and complexity. New insights on organisational change’, *Organisations and People*, Vol. 7, No. 2, pp. 2–9; J. MacQueen (2020). *The Flow of Organizational Culture. New Thinking and Theory for Better Understanding and Process*, Palgrave MacMillan, Cham, Chapter 3, pp. 17–39. For a short overview of what a complex adaptive system is: J.H. Holland (2014). *Complexity. A Very Short Introduction*, Oxford University Press, Oxford, Chapter 3, pp. 24–36.

recognized when he stated: ‘changing the culture may require changing people. Even when there is no personality incompatibility with a new vision, if shared values are the product of many of years of experience in a firm, years of a different kind of experience are often needed to create any change.’¹²⁶ Kotter was quite clear that cultural change is not the beginning of an organizational change, but the end. Every project starting with an intention to change culture first and the rest of the organization second, is, states Kotter, doomed to fail.¹²⁷ Kotter made his statement in 1996, but it took a long time for management literature to accept that change of an existing culture is not a ‘simple’ organizational project.

As Alvesson and Sveningsson emphasize, the extent to which employees identify with an organization is more important than model behaviour for whether an organizational culture emerges or changes.¹²⁸ An organization that is perceived as (1) distinct in practices, symbols, and values, (2) successful and unique, and, (3) sustaining interpersonal interaction, provides a much-wanted social identity for its employees. If the organizational identity is ambiguous and less pronounced (which it often is), employees look for other sources of identity, such as teams, work units, places of work, or professional affiliations. It is another reason why subcultures (relational climates) emerge and survive, another reason why differentiation and fragmentation of organizational culture are more common than earlier assumed.¹²⁹

¹²⁶ J.P. Kotter (2012). *Leading Change*, Harvard Business Review Press, Boston (Ma) (first edition: 1996), p. 164.

¹²⁷ Kotter (2012), pp. 164–167.

¹²⁸ Alvesson and Sveningsson (2015), pp. 44–45.

¹²⁹ For another perspective on social identity and its effects on organizational climate, see: Liao, Joshi, and Chuang (2004).

BRINGING IT TOGETHER

Although climate and culture are interconnected, they are not the same. That much should be clear. Climate involves the perceptions of employees of what the organization is in terms of practices, policies, procedures, routines and rewards. Its focus is on the ‘situation’ and the perceptions, feelings and behaviour of employees therein. It can be viewed as temporal, subjective, and subject to manipulation by people with power and influence.¹³⁰ Culture helps define why things happen, pertains to basic assumptions, espoused beliefs, and artefacts, and is influenced by symbolic interpretations of events and artefacts in organizations.¹³¹ Culture represents an evolved context (within which a ‘situation’ may be embedded), is more stable than climate, is rooted in history, is unconsciously held, and is much more resistant to direct manipulation.¹³² Climate is more ‘immediate’ than culture. Visitors can sense climate through things such as the physical look of the place, the attitudes exhibited by employees, experiences and treatment of visitors and new employees, and a myriad of artefacts that are seen, heard, and felt.¹³³ It resides within individuals in their perceptions of the organizational context and when these perceptions are shared across individuals, higher-level aggregated climates emerge. It is a *bottom-up concept* that influences perceptions from the level of the individual employee (micro level) to the level of the organization at large. Organizational culture reflects historically-grown and difficult to change,

¹³⁰ Denison (1996), p. 644.

¹³¹ Ostroff, Kinicki, and Muhammad (2013), p. 644.

¹³² Denison (1996), p. 644.

¹³³ Schein (2000), xxiv.

shared artefacts, beliefs, and assumptions (or ideologies ¹³⁴), embedded with symbolic meanings. ¹³⁵ It is, primarily, a *top-down concept* that tries to aggregate existing relational climates into an organizational climate that is in alignment with organization-wide (leadership perceptions of) artefacts, espoused beliefs, behavioural rules, and basic assumptions (macro level). Depending on the strength of these leadership perceptions of organizational culture, the existing systems of authority, status, and power in the organization, the perception of model behaviour, and the strength of the employee's social identification with the organization, this alignment can be strong in mirroring organizational expectations and desired behaviours (integration perspective), medium, in which organizational expectations and desired behaviours are only partly shared and mirrored in teams, work units, or places of work, giving rise to subcultures (differentiation perspective), and weak, in which subcultures are (very) strong with potentially a lot of differences between them (fragmentation perspective.) ¹³⁶

Subcultures emerge from relational climates of teams, work units, places of work, or social networks, especially in organizations where alignment of culture and climate is medium or weak. These relational climates communicate group-driven expectations, and group structure, group hierarchy, and group norms (focused on accomplishing goals) emerge historically within. These climates develop into subcultures when top-down artefacts, espoused beliefs, desired behaviours, and basic assumptions are assimilated within the specific relational climate and are shared between team members. Attitudes and behaviours of employees are shaped here and they do

¹³⁴ Ostroff, Kinicki, and Muhammad (2013), p. 644.

¹³⁵ Hatch (1993), pp. 660, 669–673.

¹³⁶ Martin (2002), pp. 101–108.

have an impact on organizational effectiveness, performance and efficiency.¹³⁷ Teams, work units, or places of work develop ‘ways how things are done’. New members of the group are educated in its ‘culture’. Parts of these subcultures are aligned with organizational culture, parts of it are not. Amongst each other, subcultures differ. They can be largely the same, but they can also be opposites, and everything in between. In every subculture ‘the way how things are done’ is different. This is in line with Mintzberg’s findings when he established that parts of organizations have their own styles, which generate mutual tensions.¹³⁸ It is at the organizational level of the team, work unit, or place of work that climate and culture really meet, where relational climate and subculture integrate, and where the individual psychological climate, the shared perceptions of the group, and the organizational cultural assumptions, values, and beliefs ‘fight for dominance’ to find an (agreeable) balance.

Changing an organizational culture is extremely difficult. As mentioned, it is not a uniform phenomenon, although a basic set of organization-wide artefacts, espoused beliefs, behavioural rules, and assumptions are shared between all subcultures, otherwise there would not be an organization.¹³⁹ Given time, change is possible, based on interpretations of historical patterns of reactions to change and using informal methods, like everyday re-framing, at the level

¹³⁷ B.E. Maamari and J.F. Majdalani (2017). ‘Emotional intelligence, leadership style and organizational climate’, *International Journal of Organizational Analysis*, Vol. 25, No. 2, pp. 327–345.

¹³⁸ H. Mintzberg (1979). *The Structuring of Organizations*, Prentice Hall, Englewood Cliffs (NJ), pp. 18–34. This is also the reason why typologies (see note 107) are so difficult to operationalize: the recognized types will always be represented in organizations, with different types dominant in different subcultures or parts of the organization.

¹³⁹ Schein (2017), pp. 102–119.

of relational climates and subcultures. Organizational leaders need informal methods to ‘culturally seduce’ employees to change. Everyday re-framing is adapted to work situations of employees and the meanings and interpretations involved. Influencing beliefs, assumptions, values, and behavioural rules could, in the end, lead to changes in those beliefs, assumptions, values, and rules organization-wide. If everyday re-framing in teams, work units, places of work, or social networks could be aggregated in the organizational climate, it could, over time, change existing beliefs, assumptions, values, behavioural rules, and (even) artefacts. It would change organizational culture over time. Organizational leaders can stimulate and instigate such change, but they cannot change culture with an organizational project. They can change organizational climate, however, for better or for worse, with inconsistent behaviour, changing authority systems, neglecting psychological contracts, etc.

The combination of the psychological climate, the psychological contract, the relational climate(s) in which the individual takes part (formal and informal), the bottom-up aggregations of climate as a result of sharing team, work unit, or place of work perceptions, the top-down influence of the culture-embedding mechanisms used by organizational leaders, and the interpretive (or sensemaking) process needed to understand the relations and effects of all of this, explains the behaviour of employees in their working environment. So, how do employees behave when processing records in an organization?

4

ENTERPRISE INFORMATION MANAGEMENT

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Definition of business strategies is a common practice for finding solutions to market opportunities and for outsmarting direct competitors. Projected on the information management processes of an organization, a business strategy clarifies how information (as-process, as-knowledge, and as-thing) can be used for reaching business objectives.¹⁴⁰ According to Gyöngyi Kovács, it is a vital business asset that enables every activity, process and decision. It contributes to the increase of revenue, to the reduction of costs, to the mitigation of risks, to the improvement of quality and speed of delivery of goods and services, to the improvement of productivity, and to competitive advantage.¹⁴¹ Information is extremely important for realizing all of those effects.

In the 1990s organizations re-engineered their business processes and exchanged their standalone applications for more standard, integrated solutions. Relational databases improved the documentation of policies, decisions, products, actions and transactions, and increased information quality. However, almost eighty per cent of the information organizations manage cannot be easily integrated into traditional databases. This amount is not likely to diminish in modern organizations, where web technologies streamline business processes for enhancing collaboration, create corporate blogs, wi-

¹⁴⁰ J. Peppard and J. Ward (2016). *The Strategic Management of Information Systems. Building a Digital Strategy*, John Wiley & Sons, Chichester, fourth edition, passim, but especially pp. 116–117.

¹⁴¹ G. Kovács (2004). 'Digital asset management in marketing communication logistics', *Journal of Enterprise Information Management*, Vol. 17, No. 3, pp. 208–218, pp. 213–214.

kis, etc., and where social media tools generate large amounts of records. Their storage, dissemination, and processing require complex ICT-systems.¹⁴² EIM's objective is to enable organizations to secure records across the complex landscapes of legacy systems, corporate policies, organizational departments, business content, and big data initiatives.¹⁴³ It is a set of business processes, technologies, and practices used to manage the 'information value chain' to capture, structure, describe, preserve, and govern records across organizational, temporal, and technological boundaries to improve efficiency, pro-

¹⁴² G.J. van Bussel (2012a). 'Enterprise 2.0., accountability and the necessity for digital archiving', W.F. Riekert and I. Simon (eds.), *Information in e-Motion. Proceedings BOBCATSSS 2012 – 20th International Conference on Information Science, Amsterdam, 23-25 January 2012*, Bock+Herchen Verlag, Bad Honnef, pp. 82–86. See also: Xie and Fan (2019).

¹⁴³ S. Chaki (2015). *Enterprise Information Management in Practice. Managing Data and Leveraging Profits in Today's Complex Business Environment*, Apress Media, New York, chapter 1, pp. 1–6. See also: A. van der Lans and P. van Til (2013). 'Enterprise information management', P. Baan (ed.), *Enterprise Information Management. When information becomes inspiration*, Springer, New York, chapter 3, pp. 79–100, especially p. 80–81. EIM may also be called Digital Asset Management (DAM), originating in media, publishing and print companies to manage their financially valuable information objects, like videos, books, music, and pictures. Kovács (2004), p. 208, mentions the definition of DAM from Artesia Technologies as 'a set of coordinated technologies and processes that allow the quick and efficient storage, retrieval, and reuse of the digital files that are essential to all businesses. ... DAM provides the business rules and processes needed to acquire, store, index, secure, search, export and transform these assets and their descriptive information.' Most of the existing definitions of DAM agree with Artesia's definition. See: Artesia Technologies (2002). 'What is Digital Asset Management?'. Online source, retrieved on September 12, 2020 from: https://web.archive.org/web/20021009225711/http://www.artesia-tech.com/what_dam.html.

mote transparency, support agility, enable business insight, and to allow business strategies to reach their objectives.¹⁴⁴

In 1981, George Smith and Laurence Steadman acknowledged organizational records and archives as crucial resources for defining business strategies. They claimed records and archives to be essential resources for organizational accountability, business process performance, and reaching business objectives. They impress the crucial role history plays in coping with change and using it as analogy and diagnostic tool, exhibiting applications of organizational history for planning, marketing, management development, legal support, and public relations.¹⁴⁵ In 1980, Peter Drucker suggested four areas in which managing for the future requires careful assessment of the past: capital appropriations, personnel decisions, innovation, and analysis of strategies. Organizational archives should be used for the historical evaluation of the ability of organizational leadership to move from problems to decisions to outcomes.¹⁴⁶ In 1986, Thomas McCraw, at the time professor in general management at the Harvard Business School, said in a discussion with some of his colleagues, that ‘history is a way of thinking – a way of searching for patterns and trying to see if such patterns recur from one situation to another. It helps us think about the parameters of what’s possible, what the boundaries of likely action or possible success are. It

¹⁴⁴ G.J. van Bussel (2012b). ‘Reconstructing the past for organizational accountability’, *The Electronic Journal of Information Systems Evaluation*, Vol. 15, No. 2, pp 127–137.

¹⁴⁵ G.D. Smith and L.G. Steadman (1981). ‘Present value of corporate history’, *Harvard Business Review*, Vol. 59, No. 6, pp. 164–173, especially pp. 165–168, 171. See also: Brown (1995), chapter 2, pp. 41–82 (relating to organizational culture).

¹⁴⁶ P.F. Drucker (1980). *Managing in Turbulent Times*, Heinemann, London, pp. 68–71.

is a search for pattern.’¹⁴⁷ In a sense, all of them defined records and archives to be essential business assets that should be part of organization-wide information management.

ESPOUSED, BUT NEGLECTED VALUE

While organizational leaders accept that ‘information’ is a vital business asset, and continually reconfirm its espoused value for their organizations, in organizational life they do something different. They do not require the same discipline and rigour that applies for other business assets, like financial ones, for records and archives. EIM is (at best) partially implemented, concentrated almost exclusively and fragmentary on structured information.¹⁴⁸ This resulted in [1] fragmented storage of records in a variety of ICT-systems, unconnected with their metadata and the organizational archive they belong to; [2] fragmented metadata, separated from the records that caused their genesis and not embedded into the metadata layers of the archive, leading to a loss of contextuality; and [3] a declining quality of records, because their provenance, integrity, and preservation are in peril.¹⁴⁹ Nina Evans and James Price reported that

¹⁴⁷ A.M. Kantrow (1986). ‘Why history matters to managers’, *Harvard Business Review*, Vol 64, No.1, pp. 81–88. The importance of business history has been recognized in the curriculum of the Harvard Business School from its founding in 1908 until now.

¹⁴⁸ E. Serova (2012). ‘Enterprise information systems of new generation’, *The Electronic Journal of Information Systems Evaluation*, Vol. 15, No. 1, pp. 116–126.

¹⁴⁹ G.J. van Bussel (2016). ‘An accountability challenge. Capturing records and their context in enterprise information systems’, P. Silva, A. Guerreiro

although many organizations have extensive investments in the most up-to-date ICTs, they do not manage information as a strategic asset. Ineffective EIM is ‘the greatest single barrier to productivity in the 21st century economy.’¹⁵⁰

It means that EIM is challenging. It already struggles with managing the increasing influx (and overload) of records. According to IDC, the collective sum of the world’s data will grow from thirty-three zettabytes in 2018 to 175 zettabytes by 2025, for a compounded annual growth rate of sixty-one per cent.¹⁵¹ Employees spend up to forty per cent of a working day searching for answers and spend approximately fifteen to twenty-five per cent of their time on primarily information-related tasks.¹⁵² Information quality

ro, and R. Quaresma (eds.), *Proceedings of the 10th European Conference of Information Systems Management. ECISM 2016, Evora, Portugal, 8–9 September 2016*, ACPI, Reading, pp. 204–211. Also: F. Boudrez, H. Dekeyser, and J. Dumortier (2005). *Digital Archiving. The new Challenge*, IRIS, Mont Saint Guibert, pp. 75–89.

¹⁵⁰ N. Evans and J. Price (2018). ‘Death by a thousand cuts. Behaviour and attitudes that inhibit enterprise information asset management’, *Information Research*, Vol. 23, No. 1, paper 779. Online source, retrieved on September 12, 2020 from: <http://InformationR.net/ir/23-1/paper779.html>. Citing a senior hydrologist, working for a Canadian informatics firm.

¹⁵¹ D. Reinsel, J. Gantz, and J. Rydning (2018). *The Digitization of the World. From Edge to Core*, Framingham (Ma.), IDC. Online source, retrieved on September 12, 2020 from: <https://www.seagate.com/files/www-content/our-story/trends/files/idc-seagate-dataage-whitepaper.pdf>.

¹⁵² J. vom Brocke, A. Simons, and A. Cleven (2011). ‘Towards a business process-oriented approach to enterprise content management. The ECM-blueprinting framework’, *Information Systems and e-Business Management*, Vol. 9, No. 4, pp. 475–496, p. 475.

is still bad, and this seems to be the norm.¹⁵³ The resulting ‘information chaos’ compromises the ability to reach business objectives and that is, in many organizations, more rule than exception.¹⁵⁴ The cumulative impact of this neglect is astounding: increased operational costs of (at least) ten per cent of revenue, customer dissatisfaction, less effective decision-making, problematic implementation of new technology, an organizational image at risk, and reduced ability to define and execute new business strategies. More subtly, it hurts employee morale and breeds organizational mistrust.¹⁵⁵ Attitudes and behaviours of organizational leaders, managers, and ‘normal’ employees are fundamental issues in the emergence and continuance of this situation.

INFORMATION BEHAVIOUR

Evidence

The effects of behaviour in organizations on information management are already known for a long time. Previous research has

¹⁵³ T.C. Redman (2004). ‘Data: un unfolding quality disaster’, *DM Review*, No. 8, August, pp. 22–23. Online source, retrieved September 12, 2020 from: https://web.archive.org/web/20041012191806/http://www.dmreview.com/article_sub.cfm?articleId=1007211.

¹⁵⁴ Vom Brocke e.a. (2011), p. 476. The term ‘information chaos’ was coined by: J. Mancini (2014). *Information Chaos vs Information Opportunity. THE information challenge for the next decade*, Silver Spring (MD), AIIM. Online source, retrieved September 12, 2020 from: <https://info.aiim.org/information-chaos-versus-information-opportunity>.

¹⁵⁵ Redman (2004). Also: T.C. Redman (1998). ‘The impact of poor data quality on the typical enterprise’, *Communications of the ACM*, Vol. 41, No. 2, pp. 79–82.

identified a number of reasons why records and archives are not managed properly. Fabio Oliva identified a lack of interest from managers and employees, lack of communication, lack of information and knowledge sharing, lack of competence of staff, lack of incentive, and an information management that is not aligned with organizational strategy.¹⁵⁶ Evans and Price found a lot of reasons related to awareness (information management is not a problem), leadership and management (lack of executive support), governance (lack of responsibility and accountability), enabling systems and practices (technology shortcomings), and justification to invest time and effort in information management (unknown cost, value, and benefit).¹⁵⁷

There is considerable evidence of organizational dysfunctions attributed to failures in the information value chain. Donald Campbell, in 1958, reported twenty-one constant errors and/or biases based on human behaviour in communication systems, resulting in distortion of information.¹⁵⁸ Harold Wilensky studied organizational intelligence ('the problem of gathering, processing, interpreting, and communicating the technical and political records needed in the decision-making process') and the effects of human behaviour in

¹⁵⁶ F.L. Oliva (2014). 'Knowledge management barriers, practices and maturity model', *Journal of Knowledge Management*, Vol. 18, No. 6, pp. 1053–1074, especially pp. 1061–1062.

¹⁵⁷ N. Evans and J. Price (2012). 'Barriers to the effective deployment of information assets. An executive management perspective', *Interdisciplinary Journal of Information and Knowledge Management*, Vol. 7, pp. 77–199. Online source, retrieved on September 12, 2020 from: <http://www.ijikm.org/Volume7/IJIKMv7p177-199Evans0650.pdf>.

¹⁵⁸ D.T. Campbell (1958). 'Systematic error on the part of human links in communication systems', *Information and Control*, Vol. 1, No. 4, 334–369.

the distortion of information.¹⁵⁹ In *Inside Bureaucracy*, Anthony Downs focused on bureaucracy as a system of hierarchy, a typology of its officials, and their behaviour regarding to records in promoting their organization and themselves.¹⁶⁰ Irvin Janis studied ‘group-think’ in foreign policy, excessive seeking of uniformity in thinking to the extent personal doubts are suppressed, dissenters are silenced, and information (as-knowledge and as-thing) is intentionally neglected, manipulated, or destroyed.¹⁶¹ Herbert Simon and John Athanassiades both emphasized tendencies of employees to screen, withhold, modify, or otherwise manipulate upward communication flows, based on their needs.¹⁶² Charles O’Reilly proved that intentional and unintentional distortion of information is caused by mistrust of the sender(s), leading the receiver to manipulate quality and to hamper access by hiding or misplacing.¹⁶³ Benjamin Singer and Manfred Kets de Vries studied psychotic and pathological behaviours of employees, leaders, and – as a result – organizations.¹⁶⁴

¹⁵⁹ H. Wilensky (2015). *Organizational Intelligence. Knowledge and Policy in Government and Industry*, Quid Pro Books, New Orleans (first edition: 1967), p. 3.

¹⁶⁰ A. Downs (1967). *Inside Bureaucracy*, Little-Brown, Boston.

¹⁶¹ I. Janis (1972). *Victims of Groupthink. A Psychological Study of Foreign-Policy Decisions and Fiascos*, Houghton-Mifflin, Boston.

¹⁶² H.A. Simon (1997). *Administrative Behavior. A Study of Decision-Making Processes in Administrative Organizations*, Free Press, New York, fourth edition (first edition: 1967); and J.C. Athanassiades (1973). ‘The distortion of upward communication in hierarchical organizations’, *The Academy of Management Journal*, Vol. 16, No. 2, pp. 207–226.

¹⁶³ C.A. O’Reilly (1978). ‘The intentional distortion of information in organizational communication. A laboratory and field investigation’, *Human Relations*, Vol. 31, No. 2, pp. 173–193.

¹⁶⁴ B.D. Singer (1980). ‘Crazy systems and Kafka circuits’, *Social Policy*, Vol. 11, 46–54; Kets de Vries (2011); and Kets de Vries (2019).

Ronald Rice and Stephen Cooper confirmed that communications in organizations are often blocked or distorted. They prove that organizations allow employees to misuse, distort, or suppress knowledge and records.¹⁶⁵ Robert Zmud argues that the use of ICTs stimulate strategic information behaviours (such as distortion of data and records) that make organizational functions vulnerable.¹⁶⁶ In 2006, in a survey, seventy-six per cent of respondents admitted they hid information.¹⁶⁷ Similarly, in 2012 He Peng reported that forty-six per cent of the respondents in a survey reported to have hidden knowledge at work.¹⁶⁸ In 2012, also, John Hafer and George Gresham reported minor or moderate forms of ‘information sabotage’, and mentioned how many per cent of their respondents (organizational leaders) acknowledged to have been confronted with: purposely delaying the transfer of information (73.2 %), purposely misdirecting information (60 %), creating misinformation about a coworker or manager (61.1 %), gathering information in a slow manner (69 %), and holding information hostage (for instance, not disclosing passwords to critical systems) (54.2 %).¹⁶⁹ In 2017, Tho-

¹⁶⁵ R.E. Rice and S.D. Cooper (2010). *Organizations and Unusual Routines. A Systems Analysis of Dysfunctional Feedback Processes*. Cambridge University Press, Cambridge, chapters 7 and 8.

¹⁶⁶ R.W. Zmud (1990). ‘Opportunities for strategic information manipulation through new information technology’, J. Fulk and C.W. Steinfield (eds.), *Organizations and Communication Technology*, SAGE Publications, London–New Delhi, chapter 5, pp. 95–116.

¹⁶⁷ C.E. Connelly, D. Zweig, J. Webster, and J.P. Trougakos (2012). ‘Knowledge hiding in organizations’, *Journal of Organizational Behavior*, Vol. 33 No. 1, pp. 64–88, p. 65 (citing a newspaper poll).

¹⁶⁸ H. Peng (2013). ‘Why and when do people hide knowledge?’, *Journal of Knowledge Management*, Vol. 17, No. 3, pp. 398–415, p. 399.

¹⁶⁹ Information sabotage is defined as ‘the *maliciously* purposeful and covert, or overt, attempt by employees to intentionally and with premedita-

mas Martin and John Hafer stated that the leadership tolerance for these mentioned behaviours is high as most are seen as errors or mistakes. There is leadership intolerance for stealing, hiding, altering or erasing, and releasing of proprietary information, but, because it is difficult to prove, leaders often do not act on it.¹⁷⁰ In 2017 also, Tadhg Nagle, Thomas Redman and David Sammon stated that *only three per cent* of organizational information meets basic quality standards and that in forty-seven per cent of all new information there is *at least* one critical, work-impacting error.¹⁷¹ Although some of this evidence concerns ‘information-as-knowledge’, most of it concerns ‘information-as-thing’ in its expression of records. All of this research (and there is more available) provides considerable evidence that organizational dysfunctions can be directly associated with information behaviour and (as a logical consequence) failures in the information value chain.¹⁷²

tion hinder, harm or prevent the acquisition, dissemination and response to market/customer/company information’. J.C. Hafer and G. Gresham (2012). ‘Managers’ and senior executives’ perceptions of frequency and type of employee-perpetrated information sabotage and their attitudes toward it – the results of a pilot study’, *Journal of Behavioral and Applied Management*, Vol. 13, No. 3, pp. 151–167.

¹⁷⁰ T. Martin, and J.C. Hafer (2017). ‘Managerial tolerance of insider information sabotage acts and how different organizational cultures might influence such tolerance’, *Journal of Behavioral and Applied Management*, Vol. 17, No. 3, pp. 254–274.

¹⁷¹ T. Nagle, T.C. Redman, and D. Sammon (2017). ‘Only 3% of companies data meets basic quality standards’, *Harvard Business Review*, September 11. Online source, retrieved on September 12, 2020 from: <https://hbr.org/2017/09/only-3-of-companies-data-meets-basic-quality-standards>.

¹⁷² Singer (1980); Van Bussel (2012).

Counterproductive

In his book about EIM, John Ladley cautions that the implementation of EIM challenges both organizational culture as the mind-sets of its employees. Both are, of course, related.¹⁷³ These challenges can (and, most often, will, especially when existing routines are changed) result in many forms of resistance, such as a reduction in productivity, missed deadlines, expression of negative emotions, reverting to old ways of doing things, bargaining to be exempted from new policies or processes, refusing to provide the resources required, cancelling or refusing to attend meetings, and withholding sponsorship and/or endorsement.¹⁷⁴ All are explainable behavioural responses to organizational changes that can be perceived by employees as an ‘attack’ on the existing psychological contracts and their job security.¹⁷⁵ Most critical is that employees will resort to actively withholding knowledge from co-workers, resulting in the information behaviour mentioned before.¹⁷⁶ They keep quiet when asked questions, keep knowledge and records confidential, manipulate shared records, do not file records within the organizational archive but use personal storage instead, ‘steal’ records when leaving, process new records carelessly, or/and destroy records unauthorized. This counterproductive information behaviour is a lower-

¹⁷³ J. Ladley (2010). *Making Enterprise Information Management (EIM) Work for Business. A Guide to Understanding Information as an Asset*, Morgan Kaufmann, New York, pp. 8–9, 158.

¹⁷⁴ Ladley (2010), pp. 96–98; Evans and Price (2018).

¹⁷⁵ B. Shan (2012). *The Role of Psychological Contract Breach in Determining Chinese Civil Servants' Behavioural Responses to Organizational Change*. Liverpool John Moores University, Doctoral thesis, pp. 36–41. Online source, retrieved on September 12, 2020, from:

<http://researchonline.ljmu.ac.uk/id/eprint/6174/>

¹⁷⁶ Peng (2013), pp. 401–402.

level concept, with a close family resemblance to counterproductive work behaviour. This behaviour can be defined as ‘voluntary behaviour that violates significant organizational norms and in so doing threatens the well-being of an organization, its members, or both.’¹⁷⁷ Sandra Robinson and Rebecca Bennett developed a typology of counterproductive (deviant) work behaviour in which such behaviour may be directed toward individual employees or the organization at large and may be minor (taking longer breaks, gossiping) of major (fraud, sabotage).¹⁷⁸ In a similar vein, employees may withhold their knowledge from co-workers or the organization and their behaviour may also range from minor (ignoring a request, sloppy registration of records) to major (deliberately manipulating vital records.)¹⁷⁹ In 2018, Evans and Price recognized that the attitudes and the behaviour of employees significantly influence the organizational management of information,¹⁸⁰ and identified two general types of information behaviour: hoarding and hiding. The be-

¹⁷⁷ S.L. Robinson, and R.J. Bennett (1995). ‘A typology of deviant workplace behaviors. A multidimensional scaling study’, *The Academy of Management Journal*, Vol. 38, No. 2, pp. 555–572, p. 556.

¹⁷⁸ Robinson and Bennett (1995), p. 565.

¹⁷⁹ A. Serenko, and N. Bontis (2016). ‘Understanding counterproductive knowledge behaviour. Antecedents and consequences of intra-organizational knowledge hiding’, *Journal of Knowledge Management*, Vol. 20, No. 6, pp. 1199–1224, p. 1202–1203.

¹⁸⁰ As a comparison, although not quite the same, relatively few knowledge management initiatives within organizations have resulted in benefits. Employees are reluctant to use knowledge management systems and technologies to capture and transmit knowledge. See: J. Webster, G. Brown, D. Zweig, C. Connelly, S. Brodt, and S. Sitkin (2008). ‘Beyond knowledge sharing. Knowledge hiding and hoarding at work’, J.J. Martocchio (ed.), *Research in Personnel and Human Resources Management*, Vol. 27, Emerald Group Publishing, Bingley, pp. 1–37, p. 2.

haviours mentioned before can be seen as examples of these general behaviours, from minor to major, from simple errors, conscious misdemeanour, to sabotage.

Hoarding and hiding

Hoarding and hiding result, according to Evans and Price, in either ‘landfill information’ where knowledge and records are buried and forgotten (due to selfishness, a lack of responsibility, interest, discipline, incentive, and competence), or ‘bunker information’ where knowledge and records are fortified and defended (due to (malicious) misplacing, overvaluing as something that should be guarded and protected, fear of being exposed by its inadequacy or incorrectness, organizational politics, and power needs).¹⁸¹

Hoarding behaviours (or ‘knowledge sharing ignorance’¹⁸²), not always unintentional, are the result of the perception of employees that their knowledge is private intellectual capital, and not to be shared with others in their team or the organization. Hoarding refers also to the deliberate accumulation of records and concealing the fact that the employee possesses them or misplacing them so only he or she knows where they are.¹⁸³ Employees do have a natural inclination to hoard everything they perceive as valuable (due

¹⁸¹ Evans and Price (2018). Their identification is based on: S. Kang (2016). ‘Knowledge withholding. Psychological hindrance to the innovation diffusion within an organisation’, *Knowledge Management Research & Practice*, Vol. 14, No. 1, pp. 144–149, but confirmed in their survey research.

¹⁸² J. Israilidis, E. Siachou, L. Cooke, and R. Lock (2015). ‘Individual variables with an impact on knowledge sharing. The critical role of employees’ ignorance’, *Journal of Knowledge Management*, Vol. 19, No. 6, pp. 1109–1123.

¹⁸³ Serenko and Bontis (2016), p. 1201.

to the unconscious drive to acquire),¹⁸⁴ to obtain personal gains, and pursue strategies to make themselves indispensable.¹⁸⁵ In competitive environments, employees may be assuming personal vulnerability by revealing knowledge or records and may consider hoarding them for their professional survival.¹⁸⁶ *Hiding* behaviours are, according to Alexander Serenko and Nick Bontis, the deliberate employee attempts to withhold or conceal knowledge (and records), requested by fellow colleagues.¹⁸⁷ This definition emphasizes that the perpetrator makes an intentional attempt not to share knowledge and/or records. Employees are likely to hide these from colleagues they distrust, but it is the perception of the context they are in that decides how they will be hidden.¹⁸⁸ Hiding knowledge and records is not a uniform set of negative behaviours, but a common response to a given situation, in every organization.

Elif Bilginoğlu characterizes employees showing these behaviours as individuals that perceive sharing knowledge and/or records with colleagues as giving away ‘power,’¹⁸⁹ and, as a result, ‘think(s) it is necessary ... to keep certain facts about a system or technology to themselves.’¹⁹⁰ These employees have control of key knowledge

¹⁸⁴ L.F. Liao (2008). ‘Knowledge-sharing in R&D departments. A social power and social exchange theory perspective’, *The International Journal of Human Resource Management*, Vol. 19, No. 10, pp. 1881–1895, p. 1884.

¹⁸⁵ N. Jain (2012). ‘Knowledge hoarding. A bottleneck to organizational success’, *Indian Journal of Industrial Relations*, Vol. 47, No. 4, 750–752, p. 751–752.

¹⁸⁶ E. Bilginoğlu (2019). ‘Knowledge hoarding. A literature review’, *Management Science Letters*, Vol. 9, No. 1, 61–72, p. 63.

¹⁸⁷ Serenko and Bontis (2016), p. 1202.

¹⁸⁸ Connelly, Zweig, Webster, and Trougakos (2012), p. 68.

¹⁸⁹ Bilginoğlu (2019), p. 62.

¹⁹⁰ S. Northcutt, C. Madden, and C. Welti (2004). *IT Ethics Handbook. Right and Wrong for IT Professionals*, Syngress Publishing, Rockland, p. 522.

(and/or records) and use this control to establish a position of power. They will do ‘everything’ to prevent their ‘power’ to be diminished and this means they will only share knowledge or records very sparingly to accomplish a specific task or solve a problem. It is possible that hoarded or hidden records will be shared in the future. Until that time, the accumulation of organizational records by employees will be stored haphazardly in personal storage spaces or functional silos on a variety of servers, hard drives, and other storage media. Most often, they are badly secured, named, and organized, with the likelihood of ‘leaking’ into the wrong hands, hard to find, or simply be lost.

The social media exchange theory (as explained by both George Homans and Peter Blau) can be used to explain information behaviour in exchange processes within a social system.¹⁹¹ This theory suggests that participants in social systems possess something that other participants value and require something valuable in return. Interactions are exchanges, be it based on reciprocity or on negotiation. The foundation for a rewarding exchange process is that it is two-way: employees share knowledge and records because they expect to receive them in return. If not, they may reciprocate negatively. In that situation, it shows ‘the tendency to return negative treatment for negative treatment.’¹⁹² So, when employees (intentionally) conceal ‘information-as-knowledge’ and ‘information-as-thing’, their co-workers will answer in kind by doing the same

¹⁹¹ G.C. Homans (1961). *Social Behavior. Its Elementary Forms*, Routledge & Kegan Paul, New York; P. Blau (1986). *Exchange and Power in Social Life*, John Wiley & Sons, New York, second edition (first edition: 1964).

¹⁹² R. Cropanzano, and M.S. Mitchell (2005). ‘Social exchange theory. An interdisciplinary review’, *Journal of Management*, Vol. 31, No. 6, pp. 874–900, p. 878.

in return. Power en mistrust almost always result in failing reciprocity.¹⁹³

Point of control

Complicating an already tedious and problematic attitudinal and behavioural situation is that there isn't a 'single point of organizational control' anymore. Until a few years ago, organizations captured and 'controlled' records in an infrastructure that did not cross the borders of its organizational structure. If accountability, compliance, security, or other business-related issues arose, there was a 'single point of control' defined: the organization or one of its departments. That 'point of control' became diffused with the ongoing integration of business processes between different organizations, stimulated by sharing records through (for instance) social media and the breakthrough of supply chain and ERP-systems.¹⁹⁴ The diffusion of control makes it difficult to ascertain which of the integrated process owners is responsible for accountability, compliance, security, or access. It is already problematic to achieve the expected information quality, compliance and information governance; organizational chains make this even more challenging.¹⁹⁵

¹⁹³ M.R. Haas, and S. Park (2010). 'To share or not to share? Professional norms, reference groups, and information withholding among life scientists', *Organization Science*, Vol. 21, No. 4, pp. 873–891.

¹⁹⁴ M. Srinivasan and A. Dey (2014). 'Linking ERP and e-business to a framework of an integrated e-supply chain', F.Z. Martínez-López (ed.), *Handbook of Strategic e-Business Management*, Springer, Berlin and Heidelberg, pp. 281–305.

¹⁹⁵ J. van de Pas and G.J. van Bussel (2015a). 'Privacy lost – and found? The information value chain as a model to meet citizens' concerns', *Electronic Journal of Information Systems Evaluation*, Vol. 18, No. 2, pp. 199–209 and J. van de Pas and G.J. van Bussel (2015b). 'Embedding Privacy in ICT Architectures. The citizen as public stakeholder in architecture development',

Commodity

This information behaviour will be common when employees treat records as a personal commodity, lack discipline, misuse communication channels, do not perceive themselves as psychologically safe, have doubts about the validity of their psychological contract, and/or perceive an environment in which information-related behavioural rules are not consistently implemented, shown, and enforced. When EIM lacks sponsorship from organizational leaders and those behavioural rules are not enforced, information-sharing projects will fail and hoarding and hiding behaviours will prevail.

I mentioned research that described a number of reasons why within organizations records and archives are not managed properly, varying from lack of interest, lack of communication, lack of information and knowledge sharing, lack of competence of staff, lack of incentive, and lack of awareness by employees and organizational leaders. This lack of ‘everything’ accepts and tolerates information behaviour that is clearly not aligned with the espoused declarations of the business value of ‘information’ that organizational leaders like to use. I encountered all of these reasons for unsuccessful implementations of EIM within (inter-)national organizations, be they private or public. There are four intangible personal and organizational phenomena that give cause for the mentioned reasons for such information behaviour and they are largely neglected by organizational leadership. This neglect causes, in the end, large problems for EIM, and especially for records, and archives.

B. van der Sloot (ed.), *Proceedings of the Amsterdam Privacy Conference (21–26 October 2015)*, Amsterdam, APPR, 14 pages, incl. references (only available on USB). Online source, retrieved on September 12, 2020 from: https://www.researchgate.net/publication/303669992_Embedding_Privacy_in_ICT_Architectures_The_citizen_as_public_stakeholder_in_architecture_development.

5

INTANGIBLE PHENOMENA THAT INFLU- ENCE INFORMATION BEHAVIOUR

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PSYCHOLOGICAL OWNERSHIP

Employees treat knowledge and records primarily as a personal commodity, not as business assets. For them, both are theirs to use. Behaviours like hoarding and hiding are expressions of that belief, following a natural drive to acquire and collect. According to He Peng, employees regard knowledge when acquiring, controlling or creating it, be it for personal or organizational use, as their personal psychological property.¹⁹⁶ Psychological ownership refers to a 'the state in which individuals feel as though the target of ownership or a piece of that target is 'theirs' (i.e., 'It is mine!')'¹⁹⁷ Psychological ownership exists when individuals are psychologically tied to its target. Employees can easily form ownership feelings over knowledge and records when having constant control over it, investing time or energy on it, or being familiar with it.¹⁹⁸ As a result, they will be unwilling to share the object of ownership with others.¹⁹⁹ Ownership feelings can be experienced of a wide variety of targets, be they material or immaterial, like ideas, words, art, and, even, other people. Employees who experience 'information'-based psychological ownership experience strong attachments to knowledge and records they have created or participated in creating or gathering.²⁰⁰ Controlling knowledge and records is an important factor to influence

¹⁹⁶ Peng (2013), p. 400–401.

¹⁹⁷ J.L. Pierce, T. Kostova, and K.T. Dirks (2003). 'The state of psychological ownership. Integrating and extending a century of research,' *Review of General Psychology*, Vol. 7, No. 1, pp. 84–107, p. 86.

¹⁹⁸ Peng (2013), p. 399.

¹⁹⁹ Pierce, Kostova, and Dirks (2003), p. 101.

²⁰⁰ Pierce, Kostova, and Dirks (2003), p. 86.

the bargaining power of employees over their organizations and determines their amount of compensation, their position in the organization, and their freedom to leave it. Employees can elevate their organizational power and status.²⁰¹ Employees experiencing strong psychological ownership are more likely to conduct dysfunctional information behaviours to keep their control,²⁰² like hiding knowledge and records, keep records in personal storage instead of in organizational archives, manipulate them, or, in the end, when nothing helps anymore, destroy them in frustration.

There is another side to these feelings of psychological ownership. Jon Pierce, Tatiana Kostova, and Kurt Dirks have postulated *organizational* manifestations of psychological ownership.²⁰³ These organizational manifestations of ownership may develop towards different organizational targets (organization, team, job, tasks, ideas or suggestions, work space, equipment, and so on.)²⁰⁴ *Organization-based* psychological ownership is concerned with the feelings of ownership and connection to the organization as a whole. *Job-based* psychological ownership, is related to ownership-feelings towards an employee's job exclusively.²⁰⁵ Both manifestations of

²⁰¹ Peng (2013), p. 401.

²⁰² Peng (2013), pp. 401–402.

²⁰³ J.L. Pierce, T. Kostova, and K.T. Dirks (2001). 'Toward a theory of psychological ownership in organizations', *Academy of Management Review*, Vol. 26, No. 2, pp. 298–310.

²⁰⁴ L. van Dyne, and J.L. Pierce (2004). 'Psychological ownership and feelings of possession. Three field studies predicting employee attitudes and organizational citizenship behavior', *Journal of Organizational Behavior*, Vol. 25, No. 4, pp. 439–459.

²⁰⁵ M.G. Mayhew, N.M. Ashkanasy, T. Bramble, and J. Gardner (2007). 'A study of the antecedents and consequences of psychological ownership in organizational settings', *The Journal of Social Psychology*, Vol. 147, No. 5, pp. 477–500, p. 478.

psychological ownership are influenced by psychological climate, psychological contract, relational climate(s) in which the individual employee takes part (formal and informal), aggregations of that climate as a result of sharing team, work unit, or place of work perceptions, the influence of the culture-embedding mechanisms used by organizational leaders, the attitudes of the organizational leadership, etcetera. The manifestations of psychological ownership are associated with employee self-esteem and the social identification of the employees with the organization.²⁰⁶ As organizational members, employees will have positive self-assessments of themselves. They will believe that they are significant, and valuable to the organization.²⁰⁷ They will conduct behaviours that will benefit their organizations to maintain and enhance their self-image. They shy away from behaviours that may do harm to their organization, that is: if their psychological contract with the organization is not broken and/or when they have the perception to be psychologically safe.²⁰⁸ Organizational leadership should continuously stimulate employee self-esteem and stimulate social identification of employees with the organization to try to direct psychological ownership to be job- or organization-based. They should spend time in creating benevolent psychological climates that stimulate psychological meaningfulness and safety. Leadership needs to create an environment in which a positive perception of the psychological contract is stimulated and consistently show desired information behaviour.

²⁰⁶ Alvesson and Sveningsson (2015), pp. 44–45.

²⁰⁷ Peng (2013), p. 403. See also: J.L. Pierce, and L. Rodgers (2004). ‘The psychology of ownership and worker-owner productivity’, *Group and Organization Management*, Vol. 29 No. 5, pp. 588–613.

²⁰⁸ Robinson (1996); Morrison and Robinson (1997); Robinson and Morrison (2000).

*THE WAY EMPLOYEES ARE
(UN-) CONSCIOUSLY APPRAISING INFORMATION*

Information processing metaphor

Psychological ownership has a close relationship with how employees are appraising sensory information, be it conscious or unconscious. Research on how humans process sensory information, knowledge, and records has consistently demonstrated that human beings are not consciously aware of the mental processes determining behaviour.²⁰⁹ Psychological ownership can be seen as a result of the unconscious drives to acquire (information) and to defend (their job, power, and/or self-esteem.) Although our brain is *not* a computer and the workings of this living organ are largely unknown, the basic metaphor in cognitive psychology is that the brain functions like a computer.²¹⁰ According to this metaphor, the information gathered via sensory perception (input), is ‘stored’ and ‘processed’ by the brain in ‘short- and long-term memory’, and brings about a behavioural response via ‘retrieval’ (‘output’). From 1986 onwards, the overall hypothesis is that sensory information is processed and stored by a neural network as the ‘memory system’ of the brain. Representations of this information that are connected

²⁰⁹ A. Pereda-Baños, I. Aripakis, and M. Barreda-Ángeles (2015). ‘On human information processing in information retrieval. position paper’, *First International Workshop on Neuro-Physiological Methods in IR Research (NeuroIR 2015)*, SIGIR, Santiago. Online source, retrieved on September 12, 2020 from: <https://iarapakis.github.io/papers/SIGIR15-short.pdf>.

²¹⁰ E. Bruce Goldstein (2019). *Cognitive Psychology. Connecting Mind, Research, and Everyday Experience*, Cengage Learning, Boston, fifth edition, pp. 13–21.

with more parts of this neural network will be much easier for an individual to ‘retrieve’ or ‘recall’ (‘neural processing’).²¹¹

Brains are not computers

It is almost certain that the metaphor is incorrect. Our brains do process sensory information and they somehow represent the external world, but it is unknown how they do that. They are evolutionary, not designed along logical lines, and our conceptual and analytical tools are inadequate to explain them. Unlike digital devices, neural networks act consistently over time, *even* if individual neurons show inconsistent behaviour. We do not have explanatory models for even the simplest of these networks. We do not understand them.²¹² What has become clear is that perceiving, remembering, reasoning, and acting are not operations of the brain *alone*, but are also dependent on their environmental context.²¹³ Juhani Iha-

²¹¹ D. Rumelhart, G. Hinton, and J. McClelland (1986). ‘A general framework for parallel distributed processing’, D.E. Rumelhart, J.L. McClelland, and the PDP Research Group (eds.), *Parallel Distributed Processing. Explorations in the Microstructure of Cognition*, Vol. 1, MIT Press, Cambridge (MA), pp. 45–76.

²¹² Based on: M. Cobb (2020). *The Idea of the Brain. A History*, Profile Books, London, pp. 1–10.

²¹³ R. Epstein (2016). ‘The empty brain. Your brain does not process information, retrieve knowledge or store memories. In short: your brain is not a computer’, *Aeon*, 18 May 2016. Online source, retrieved on September 12, 2020 from: <https://aeon.co/essays/your-brain-does-not-process-information-and-it-is-not-a-computer>. See also: L. Lobo L, M. Heras-Escribano, and D. Travieso (2018). ‘The history and philosophy of ecological psychology’, *Frontiers of Psychology*, 9: 2228. Online source, retrieved on September 12, 2020 from: <https://doi.org/10.3389/fpsyg.2018.02228>; and W.M. Roth and A. Jornet (2013). ‘Situated cognition’, *Wiley Interdisciplinary Reviews: Cognitive Science*, Vol. 4, No. 5, pp. 463–478.

nus states that memory traces are inscribed in the unconscious mind, on ‘the mystic writing pad of the psyche’, the neural memory networks for our long-term memory, the ‘archive’, to be accessed through consciousness.²¹⁴ This ‘continuity’ is created by unconscious perceiving, interpreting, encoding, storing, altering, retrieving, forgetting, and (mostly) conscious externalizing, applying, and inscribing of sensory information. The *organization* of this information is mostly unconscious, the *application* in practice conscious.²¹⁵

Unreliable

Human memory is unreliable when it comes to details. Remembering generates details that are false but that feel to the witness as actual memories.²¹⁶ The brain fills in details as best it can, borrowing from existing memories and imagination in order to build what feels like a complete representation.²¹⁷ In the interpretation of sensory information many details are (1) not encoded and stored, or (2) altered to conform to other interpretations. Interpretation create

²¹⁴ J. Ihanus (2007). ‘The archive and psychoanalysis. Memories and histories toward futures’, *International Forum of Psychoanalysis*, Vol. 16, No. 2, pp. 119–131, p. 119.

²¹⁵ S. Kuldass, Z.A. Bakar, and H.N. Ismail (2012). ‘The role of unconscious information processing in the acquisition and learning of instructional messages’, *Electronic Journal of Research in Educational Psychology*, Vol. 10, No. (2), pp. 907–940, p. 911.

²¹⁶ G.L. Wells, A. Memon, and S.D. Penrod (2006). ‘Eyewitness evidence. Improving its probative value’, *Psychological Science in the Public Interest*, Vol. 7, No. 2, pp. 45–75, especially 47–49.

²¹⁷ P. Kok, and F.P. de Lange (2014). ‘Shape perception simultaneously up- and down regulates neural activity in the primary visual cortex’, *Current Biology*, Vol. 24, No. 13, pp. 1531–1535.

fade-to-gist representations ²¹⁸ that as memories are (1) ultimately forgotten when not recalled, or (2) reconstructed when recalled, (potentially) externalized and (possibly) inscribed. Externalizations and inscriptions are not accurate representations of experiences. Each individual creates its own fade-to-gist representation that differs from other individual representations of the same event. The closer the externalization (and potential inscription) to the event, the more details (be they true or not) they will contain. When the individual has ‘learned’ something from identical experiences, that learnings can be applied in practice. It is ‘information processing’, but very different from ‘computational’ processing.

Three phases of ‘information processing’

Ihanus states that each individual continuously moves through three phases of registration (or, possibly better, ‘information processing’), connected by interplays between unconsciousness and consciousness. These three phases are (1) archivalization, (2) archivization, and (3) archiving. ²¹⁹ Especially the first phase needs attention here.

Archivalization is, according to Eric Ketelaar, ‘the conscious or unconscious choice (determined by social and cultural factors) to consider something worth archiving.’ ²²⁰ Unconscious choices are made based on a combination of personality style and learnings of

²¹⁸ R.A. Cooper, E.A. Kensinger, and M. Ritchey (2019). ‘Memories fade. The relationship between memory vividness and remembered visual salience’, *Psychological Science*, Vol. 30, No. 5, pp. 657–668.

²¹⁹ Ihanus (2007), p. 122–123.

²²⁰ E. Ketelaar (1999). ‘Archivalisation and archiving’, *Archives and Manuscripts*, Vol. 27, No. 1, pp. 54–61, p. 57, and E. Ketelaar (2000). ‘Archivistics research saving the profession’. *The American Archivist*, Vol. 63, No. 2, pp. 322–340, p. 328.

the primary socialization and assimilation processes every young individual is part of when growing up in the cultural environment that surrounds him or her. Conscious choices made for externalization, inscribing, what to do with those inscriptions, and the external memory used, are based on the same combination, supplemented with learnings from secondary socialization and assimilation processes. Every conscious choice is affected by unconscious 'basic assumptions.' I do not believe archivalization to be limited to something 'worth archiving', as Ketelaar states. Archivalization is about the continuous (un-) conscious *personal appraisal* of 'information-as-process' and 'information-as-knowledge', based on personality style, socialization and assimilation (be it primary or secondary), and perceived environment. The brain 'decides' if this 'information' is valuable enough to be remembered, if memories are to be externalized or inscribed, and if inscriptions are to be deleted, destroyed, or archived. In my opinion, archivalization can be characterized as 'the conscious or unconscious choices (determined by personality style, socialization and assimilation, and perceived environment) to continuously consider 'something' worth interpreting, storing, retrieving, forgetting, externalizing, inscribing, preserving, and managing.' It is a continuous (un-) conscious process of personal appraisal of information 'as-process', 'as-knowledge', and 'as-thing', before and after archivization and archiving,²²¹ to make sense of

²²¹ My definition is an extended version Ketelaar's one (see note 220). Although the concept of archivalization is mentioned many times in archival literature, there is almost no research done on the concept since its introduction almost twenty years ago. The concept is misrepresented in literature as a part of the operational process: 'appraisal'. But it is a psychological phenomenon (a personal appraisal) that influences information behaviour, not a configured organizational (or societal) process to only retain informa-

perceived situations in the environment.²²² Archivalization is responsible for employees thinking they have personal ownership of ‘information-as-knowledge’ and ‘information-as-thing’. They decide to externalize and inscribe this information, and, when they are receiving it from others, it is *their* personal appraisal of its value for themselves, their jobs, or their organization to decide how to handle it, to share, hoard, hide, destroy, capture, and/or contextualize it in (or outside) the organizational information value chain.

Archivalization defines and determines the two other phases of registration. Jacques Derrida described the second phase, *archivization*, as the inscribing of a trace in some external location, some

tion as long as is legally defined or that is of enduring value. As such, it *defines* archival processes, but it cannot be considered *part* of them.

²²² B. Dervin (1999). ‘On studying information seeking methodologically. The implications of connecting metatheory to method’, *Information Processing and Management*, Vol. 35, No. 6, pp. 727–750. Dervin’s Sense-Making focuses on the *individual* when moving through time and space. As this happens, gaps are encountered where individuals need to ‘make sense’ of a situation before moving on across the gap. Dervin’s approach is monadic; it focuses on the individual and the sense that the individual makes as he or she is trying to cross the gap. See also: Weick (1995) and K.E. Weick, K.M. Sutcliffe, and D. Obstfeld (2005). ‘Organizing and the process of sensemaking’, *Organization Science*, Vol. 16, No. 4, pp. 409–421. Weick focuses on *group* sensemaking (and is at least dyadic), on multiple people working together to make sense. Reality is an ongoing accomplishment that emerges from efforts to create order and make retrospective sense of what occurs. It takes form when people make retrospective sense of the situations in which they find themselves and their creations. Both views are complementary. Dervin’s view is applicable to the individual focus of archivalization; Weick’s view is applicable to organizational teams working together to reach objectives and to the organizational use of an archive. The difference in writing (‘Sense-Making’ and ‘sensemaking’) impresses both the similarity and the difference between the two views.

space outside: ²²³ ‘You cannot keep an archive inside yourself – this is not archive.’ ²²⁴ It is a conscious choice of an employee to externalize sensory information, to inscribe such a trace in an external memory (a document, a picture, a database), and to allow it to become subject of the (organizational) information value chain, entering the third phase of registration, *archiving*. According to Ihanus, this means capturing and filing information into the archive (and the metadata schedule embedding the archive). ²²⁵ Derrida makes note of the filter imposed by the technologies on inscriptions: ‘The technical structure ... determines the structure of the archivable content even in its very coming into existence and in its relationship to the future. The archivization produces as much as it records the event.’ ²²⁶ The inscribed trace (a representation of personal memory or knowledge) records it, but, at the same time, brings it into being into an external memory, a technology used by archivization to transform intangible traces into (more) tangible ‘things’. ²²⁷ If the

²²³ J. Derrida (1995). ‘Archive fever. A Freudian impression,’ *Diacritics*, Vol. 25, No. 2, pp. 9–63, especially pp. 11, 16. Derrida does not define archivization, but its meaning becomes clear ‘between the lines’. Derrida uses ‘archivation’ in the French original of ‘Archive fever’ (*Mal d'Archive. Une Impression Freudienne*, Éditions Galilée, Paris, 1995). As far as I could discern, Derrida used ‘archivation’ for the first time in: J. Derrida, *Parages*, Éditions Galilée, Paris, p. 225. In the English translation of that work the term ‘archivation’ was used.

²²⁴ S. van Zyl (2002). ‘Psychoanalysis and the archive. Derrida’s *Archive fever*’, C. Hamilton, V. Harris, J. Taylor, M. Pickover, G. Reid, and R. Saleh (eds.), *Refiguring the Archive*, Springer, Dordrecht, p. 48.

²²⁵ Ihanus (2007), pp. 122–123.

²²⁶ Derrida (1995), p. 17.

²²⁷ Derrida (1995), p. 17–18. See also: E. Ketelaar (2006). ‘Writing on archiving machines’, S. Neef, J. van Dijck, and E. Ketelaar, *Sign Here! Handwriting in the Age of New Media*, Transformations in Art and Culture Series,

employee consciously allows inscriptions to become part of the information value chain, that assent is largely based on the perception of the organizational environment: the organizational climate and (sub-) culture(s), psychological safety, psychological contract, social identification, the authority structure, and implemented, shown, and enforced information-related behavioural rules. It is possible that an employee allows this information to be shared only in his relational climate/subculture (a team, or informal network), but hides it for other parts of the organization. Relational climates/subcultures (work units, teams, places of work) can act in the same way, and individuals entering that environment may be (and probably are) influenced to behave accordingly.²²⁸

Psychologically attractive

Conscious information behaviour of employees is dependent on their personal appraisal of 'knowledge' and 'things', their secondary socialization and assimilation process in the organization, and the perception of their organizational environment. When organizational leadership impresses the value of EIM and they implement, show, and enforce desired and necessary information behaviour

Amsterdam University Press, Amsterdam, pp. 183–195. In this paper I consider a transformation into digital data to be tangible, even if in reality only the external memory that contains the data is.

²²⁸ A. Omar (2018). *The Relationship between Individual Knowledge Hiding and Team Performance Mediated by Team Knowledge Hiding. An Upper-Level Mediation in a Two-Level Model*. Master thesis Human Resource Management, University of Tilburg, Tilburg. Online source, retrieved on September 12, 2020 from: <http://arno.uvt.nl/show.cgi?fid=145467>. See also: E.J. Lawler (2006). 'Exchange, affect, and group relations', A.J. Treviño (ed.), *George C. Homans. History, theory, and method*, Boulder, Paradigm Publishers, pp. 177–202.

consistently, employees will be stimulated to use EIM-systems and tools. When not, employees (including organizational leaders and managers) will construct, process, and use records, and archives as they think is best and use them as a personal commodity. They will create and use them in different ways, even in the same teams, work units, or places of work.²²⁹ Behaviour reflects the personality styles of employees, their morals and preconceptions, the limitations of the social and cultural environment, and the perception of their psychological safety and psychological contract. Organizational leadership that wants to implement EIM as a strategic asset needs employees that perceive their organizational environment as ‘psychologically attractive’, an environment in which they perceive themselves ‘safe’ and that emphasizes that desired information behaviours are important for the ‘psychological attractiveness’ of the environment.

THE NEGLECT OF SOCIAL RELATIONS IN ‘OVER-ORGANIZED’ CONTROL SYSTEMS

Control

Although ICTs can be used to facilitate employees in working flexible, adaptive, and creative, they are mostly used to control them to adhere to specified policies, procedures, rules, and requirements, configured into these systems. Policies, procedures and rules are necessary, for without them an organization cannot exist. They provide a roadmap for day-to-day operations, ensure compliance with laws and regulations, give guidance for decision-making, define desired behaviours, and streamline internal processes. Monitor-

²²⁹ Ketelaar (2000), p. 328.

ing of their proper implementation is an important task for organizational leadership. Governance frameworks are holding employees to account for actions and decisions.

‘Over-Organizing’

Organizational control systems monitor compliance with the accountability frameworks an organization is answerable to. The concept accountability is mostly defined as the acknowledgement of (1) responsibility for policies, decisions, products, actions, and transactions, and (2) the obligation to report and be answerable for resulting consequences. It concerns the responsibilities actors have under the existing checks and balances, and, as such, it is a social relation between an accountee and an accountant with three stages: informing the accountant, a discussion between accountee and accountant, and passing judgement by the accountant.²³⁰ It is an evaluative concept to qualify a state of affairs, mostly in evidence *after an event* (‘post-factum’, or retrospective.)²³¹ In organizational practice, however, it is attempted to handle responsibility for errors based on expectations and assumptions on employee behaviour *before an event* (‘pre-factum’, or prospective.) Melvin Dubnick asserts that the prospective efforts to control situations are an attempt to *avoid* retrospective accountability, to avoid consequences and punishment.²³²

²³⁰ Van Bussel (2012). See also: M. Bovens (2007). ‘Analysing and assessing accountability. A conceptual framework’, *European Law Journal*, Vol. 13, No. 4, pp. 447–468.

²³¹ T.M. Schillemans, and M. Bovens (2011). ‘The challenge of multiple accountability. Does redundancy lead to overload?’, M.J. Dubnick, and H.G. Frederickson (eds.), *Accountable Governance. Problems and promises*, M.E. Sharpe, New York, pp. 3–21, p. 5.

²³² M.J. Dubnick (2011). ‘Move over Daniel. We need some “accountability space”’, *Administration & Society*, Vol. 43, No. 6, pp. 704–716, p. 709. For

These centralized efforts assume that compliance can be defined *before* actions actually take place, that the need to address outcomes is minimized when the actions that result in them are controlled.

The design of ICT-systems is based on this assumption and forces employee behaviour to comply to defined procedures and centralized control. That is, overall, not problematic, because most employees try to adhere to such requirements. But employees are forced into a *codified control system* that is (1) *continuously reinforced* with new policies, procedures, and rules when (perceived) problems are addressed, (2) *expected* to deliver accountable behaviour, and that is (3) *supposed* to solve the problems of control, legitimacy, and performance. Because organizations are subject to multiple expressions of accountability,²³³ the codifications tend to become complex, rigid, inconsistent (even contradictory), and ambiguous. Configuring it into ICT-systems creates hard-to-use, hard-to-change, ‘over-codified’, complex, and rigid digital environments. They are mirroring and strengthening the organizational controls itself. In ‘over-organizing’ control, organizational leaders have forgotten that accountability is *primarily* ‘a relationship of social interaction and exchange’, not codifications, standards, and procedures.²³⁴ As-

prospective vs retrospective: D. Curtin, and A. Nollkaemper (2005). ‘Conceptualizing accountability in international and European law’, *Netherlands Yearbook of International Law*, Cambridge University Press, Cambridge, Vol. 36, pp. 3–20.

²³³ According to S.I. Lindberg (2013). ‘Mapping accountability. Core concept and subtypes’, *International Review of Administrative Sciences*, Vol. 79, No. 2, 202–226, p. 213, there are *at least* twelve different dimensions of organizational accountability.

²³⁴ Bovens (2007), p. 450–452. For citation: R. Mulgan (2003). *Holding Power to Account. Accountability in Modern Democracies*, Palgrave MacMillan, New York, p. 11.

sections of ‘unaccountability’ often reflect a failure to recognize the relational nature of accountability.²³⁵ Organizational leaders have ‘forgotten’ that organizations are social systems, based on social relations and (partly) on informal structures.

‘Social flux’

Mollie Painter-Morland states that organizations can be characterized by the dynamics of a ‘complex adaptive system.’²³⁶ In everyday-life, informal organizational structures act like complex adaptive systems, show nonlinear, dynamic interactions, and functional relationships between employees.²³⁷ Existing formal organizational structures cannot handle organizations as a complex adaptive system, being in ‘social flux’, unpredictable, unstable, and (largely) unmanageable.²³⁸

Centralized and codified organizations have defined what *needs* to happen and control what *should have* happened, but in everyday-life employees do not behave as the rules and procedures assume them to do. Their behaviour deviates from the formal organizational structures to solve problems in the informal structures of social networks, characterized by dynamic interactions and functional relationships (in line with the social media exchange theory.) Roy

²³⁵ C. O’Kelly, and M.J. Dubnick (2019). ‘Dissecting the semantics of accountability and its misuse’, H.L. Paanakker, A. Masters, and L. Huberts (eds), *Quality of Governance. Values and Violations*, Palgrave Macmillan, London, Chapter 3, pp. 45–80, p. 72.

²³⁶ M. Painter-Morland (2007). ‘Redefining accountability as relational responsiveness’, *Journal of Business Ethics*, Vol. 16, pp. 89–98.

²³⁷ Painter-Morland (2007), p. 91, 92, as she states that behaviour reflects the ‘fluid internal logic of business as a system of dynamic functional relationships.’

²³⁸ O’Kelly and Dubnick (2019), p. 48.

Heidelberg defines this state as ‘per-factum’: everything that happens between ‘pre-factum’ and ‘post-factum’, all activities during the action or transaction.²³⁹ This stage is neglected in the prospective codification of the control system, that excludes improvisation, and avoids political discussion and social collaboration. And that way, ‘spaces of contestation’ are hidden, spaces of social interaction and exchange, filled with discussions and negotiations, where employees reach decisions about how to realize business objectives. In those spaces, control should be prominent, but it is not. Ciarán O’Kelly and Melvin Dubnick characterize these ‘spaces of contestation’ with the metaphors of the ‘Agora’ and the ‘Bazaar.’ These are spaces in which employees are collectively deriving meaning from mutual exchange to construct purpose.²⁴⁰

Agora and Bazaar

An ‘Agora’ is a fluid space, ‘founded on an unending cascade of social situations and the relationships that these situations inform’, in and between organizations.²⁴¹ Organizational procedures, power structures, and organizational purposes are ‘informed’ about the standpoints and decisions emerging as results from the collaborative relationships within the ‘Agora’. The ‘Bazaar’ describes social relations and exchange *in mutual pursuit of each other’s interests*. The

²³⁹ R.L. Heidelberg (2017). ‘Political accountability and spaces of contestation’, *Administration & Society*, Vol. 49, No. 10, pp. 1379–1402, p. 1387.

²⁴⁰ O’Kelly and Dubnick (2019). For the ‘Agora’, pp. 59–64, for the Bazaar, pp. 64–71. For ‘deriving meaning’: H. Paanakker, A. Masters, and L. Huberts (2019). ‘Quality of governance. Values and violations’, H.L. Paanakker, A. Masters and L. Huberts (eds.), *Quality of Governance. Values and Violations*, Palgrave Macmillan, London, Chapter 1, pp. 3–24, p. 17. See also: Weick (1995).

²⁴¹ O’Kelly and Dubnick (2019), p. 59.

focus of the ‘Bazaar’ are the negotiations between employees that generate results, and the exchanges needed for those negotiations to be successful. These exchanges try to find a mutual interest and are willing to trade favours, information (‘as-knowledge’ and ‘as-thing’), or esteem to achieve their purposes. In the ‘Bazaar’, these exchanges are not open to description, formal scrutiny, codified rules, and control. It is part of the ‘black box’ of everyday work, in which organizational leaders participate. Robert Goodin called this bantering for agreements ‘bureaucratic back scratching.’²⁴² This can be problematic if influence, knowledge, or (hoarded or hidden) records are exchanged for favours, goods, money, and the like.²⁴³ Employees engaging in these social relations are not behaving as they should according to formal organizational structures. Most of these exchanges are not captured in ICT-systems until *after the event*, to allow the system to proceed according to the defined, prospective procedures. It is a case of ‘retrospective inscribing’, presented *as if* the formal procedures were realized and capturing a different context than prospectively defined. That *real* context of decision-making in the social and situational reality of the ‘spaces of contestation’ is lost.

Bonnie Nardi, based on activity theory, argues that human experience is shaped by the tools and sign systems in use. She emphasizes the importance of motive and consciousness, which are human characteristics that differentiate between people and things. People are not ‘nodes’ or ‘agents’ in a technological system. They are actors using systems as a tool to realize objectives. People and machines process ‘information’ differently. They cannot be modelled the same

²⁴² R.E. Goodin (1975). ‘The logic of bureaucratic back scratching’, *Public Choice*, Vol. 21, No. 1, pp. 53–67, pp. 62–65.

²⁴³ O’Kelly and Dubnick (2019), pp. 70–71.

way. Artefacts (like ICTs) are *mediators* of human thought and behaviour; they do not occupy the same ontological space. The meaning of actions and transactions and their relationship with artefacts can only be understood in the way artefacts are integrated into social practice.²⁴⁴ This explains why prospectively configuring and ‘over-organizing’ control systems to avoid ‘per factum’ is not going to work. Assuming that prospectively designed and configured systems can decide *how* employees are realizing their objectives neglects social practices and relations in organizations. Employees will not let that happen, and deviant information behaviour will be a result, especially when organizational leaders themselves do not show the desired information behaviours they want their employees to practice.

Double-edged sword

Control is a double-edged sword. It is necessary to enforce policies, procedures, and rules. Organizational leaders need to consistently implement and enforce control systems to keep their organizations compliant to laws and regulations. But ‘over-organizing’ control systems with procedures and rules to every infraction made, prospectively implement them in ICTs, and neglecting social relations and practices, overstretches the limits of control and creates ‘spaces of contestation’ in which control is absent. Employees resist to overbearing systems that try to restrict them to defined procedures, try to limit social dynamics, and try to make them subservient to the ICTs used. Employees perceive threats for their psychol-

²⁴⁴ B.A. Nardi (1996). ‘Activity theory and human-computer interaction’, B.A. Nardi (ed.), *Context and Consciousness. Activity Theory and Human-Computer Interaction*, The MIT Press, Cambridge (Ma), pp. 7–16, esp. pp. 13–14. Activity theory is closely related to ecological psychology, see note 213.

ological contract, their psychological safety, their relational climates, and so on. They, also, perceive their leaders to (1) behave inconsistently and ambiguously and (2) show little to no attention to the way they ‘retrospectively inscribe’ the ICTs and control systems used.

Control systems will need to allow employees to use technology as a tool that recognizes social dynamics in the ‘per factum’ stage and to control only the absolute necessities. Organizational leaders need to allow their organizations to operate like a complex adaptive system. It will be EIM’s challenge to organize the information value chain in such a way that employees can use flexible ICTs, even within ‘spaces of contestation’, which allow and facilitate them to work flexible, adaptive, and creative.

ABSENT, UNSHARED, OR FRAGMENTED ‘INFORMATION CULTURE’

Information culture as a concept

It is necessary here to pay attention to a branch of information science research that concerns itself with the concept of ‘information culture’ and uses this concept to explain information behaviour. As has been shown, information behaviour does ‘not unfold in a social or cultural void’. It is partly ‘rooted in the attitudes, assumptions, and values the organization holds about the role and contribution of information to organizational effectiveness’. ²⁴⁵ Adding to this, as has been shown in this paper, it is ‘rooted’ in

²⁴⁵ C.W. Choo (2016). *The Inquiring Organization. How Organizations Acquire Knowledge and Seek Information*. Oxford University Press, Oxford, p. 163.

human psychology, too. In information science, these shared assumptions, behavioural rules, norms and values about creating, sharing, and managing information in an organization, are called 'information culture'. Chun Wei Choo suggests that this information culture has (as part of the organizational culture) its own effect on information behaviour.²⁴⁶ The 'information culture' concept is used in many contexts, with different meanings, from the 1970s onward.²⁴⁷ The use of the concept, then, was mostly casual, its meaning almost never clarified, and mostly related to a transformation from an industrial to an 'information' society, with a new 'information culture.'²⁴⁸ It is, as so many concepts within the domain of information and organizational studies, an elusive concept. Its origin is unclear, its relationship with organizational culture is, according to Anneli Sundqvist and Proscovia Svärd, undisputed.²⁴⁹ However, in literature about organizational culture, information culture is not an item. So, what does this concept mean?

²⁴⁶ Choo (2016), p. 163.

²⁴⁷ The first mention I could find is N. Portnov (1970). 'Scientific and information activities of institute's libraries', *Proceedings of the International Federation of Library Associations (IFLA), 36th Session, September 1970, Moscow*, IFLA, Sevenoaks. Online source, retrieved on September 12, 2020, from: <https://files.eric.ed.gov/fulltext/ED045137.pdf>. Used as individual phenomenon to be advanced by lectures and consultations and is, in essence, 'information literacy'.

²⁴⁸ For instance: P.A. Strassmann (1982), 'Overview of strategic aspects of information management', *Office Technology and People*, Vol. 1, No. 1, pp. 71–89.

²⁴⁹ A. Sundqvist, and P. Svärd (2016). 'Information culture and records management: a suitable match? Conceptualizations of information culture and their application on records management', *International Journal of Information Management*, Vol. 36, No. 1, pp. 9–15, esp. pp. 10–12.

Values and behaviours

In the mid-1980s, the first organizational applications of the concept can be discerned, starting with (1) the information infrastructural view of Judy Labovitz and Edward Tamm in their case-study of Cetus, a biotechnological company,²⁵⁰ and (2) the studies of Mariam Ginman about the ‘individual’ information culture of the CEO (identifying information culture with the information behaviour of an individual),²⁵¹ and Ian Owens, Tom Wilson and Angela Abell about the acknowledgement of information value by employees (called information ethos, or culture.)²⁵² This individual perspective gradually evolves into an organizational one, for unclear reasons and arguments.²⁵³

Although Adrienne Curry and Caroline Moore state that values, assumptions and beliefs are intrinsic parts of the concept, these are not part of their definition. Their definition concentrates not on ‘how things are done’ but on organizational effects,²⁵⁴ like commu-

²⁵⁰ J. Labovitz, and E. Tamm (1987). ‘Building an information culture. A case study’, *Information Systems Management*, Vol. 4, No. 4, pp. 39–41.

²⁵¹ M. Ginman (1988). ‘Information culture and business performance’, *Latul Quarterly. A Journal of Library Management and Technology*, Vol. 2, No. 2, pp. 93–106.

²⁵² I. Owens, I., T.D. Wilson, and A. Abell (1995). ‘Information and business performance. A study of information systems and services in high-performing companies’, *Information Research*, Vol. 1, No. 2, Paper 5. Online source, retrieved on September 12, 2020, from: <http://informationr.net/ir/1-2/paper5.html>.

²⁵³ For instance: A. Abell, and V. Winterman (1995). ‘Introduction and background (Literature Review)’, A. Grimshaw (ed.), *Information Culture and Business Performance*, University of Hertfordshire Press, Hatfield, pp. 1–26.

²⁵⁴ A. Curry, and C. Moore (2003). ‘Assessing information culture – an exploratory model’, *International Journal of Information Management*, Vol.

nication, synergy, cross-organizational collaboration, co-operative working practices, information access, linked ICT- and business strategies, information management, and documentation of policies, processes and procedures.²⁵⁵ When these 'components' are adopted, its 'ethos' communicated and the organizational structure 'restructured', it becomes 'the norm, i.e. 'the way how things are done.' At that moment, information culture is no longer distinguishable from organizational culture.²⁵⁶ Curry and Moore write about EIM, not about information culture. Chun Wei Choo, Pierette Bergeron, Brian Detlor, and Lorna Heaton argued that information culture is reflected in the organization's values, norms, and practices,²⁵⁷ based on an earlier definition: 'the socially transmitted patterns of behaviors and values about the significance and use of information in an organization.'²⁵⁸ Based on the model of Information Orientation, developed by Donald Marchand, William Ket-

23, No. 2, pp. 91-110, p. 94. They define information culture as: 'A culture in which the value and utility of information in achieving operational and strategic success is recognised, where information forms the basis of organizational decision making and Information Technology is readily exploited as an enabler for effective Information Systems'.

²⁵⁵ Curry and Moore (2003), pp. 97-98.

²⁵⁶ Curry and Moore (2003), pp. 95-96.

²⁵⁷ C.W. Choo, P. Bergeron, B. Detlor, and L. Heaton (2008). 'Information culture and information use. An exploratory study of three organizations', *Journal of the American Society for Information Science and Technology*, Vol. 59, No. 5, pp. 792-804, p. 793.

²⁵⁸ C.W. Choo, C. Furness, S. Paquette, H. van den Berg, B. Detlor, P. Bergeron, and L. Heaton (2006). 'Working with information. Information management and culture in a professional services organization', *Journal of Information Science*, Vol. 32, No. 6, pp. 491-510, p. 492.

tinger, and John Rollins,²⁵⁹ Choo c.s. used Marchand's set of information values and behaviours to assess information culture, a set of three 'behaviours' (control, sharing, and pro-activeness) and three 'values' (integrity, formality, and transparency.) Interpreting the 'behaviours' as 'desired behaviours' they, together with the 'values', can be considered as belonging to the second level of Schein's framework.²⁶⁰ The first level ('artefacts') and the third level ('basic assumptions') of this framework are not addressed. Choo developed a typology of information cultures based on these behaviours and values in the context of information seeking. He recognized four cultural types: (1) relationship-based culture, in which communication, participation and commitment are encouraged; (2) risk-taking culture, characterized by innovation, creativity and exploration of new ideas; (3) result-oriented cultures, which pursue especially goal achievement and competitive advantage; and (4) rule-following cultures, that are characterized by control, compliance, and accountability.²⁶¹ Choo emphasized that most individual organizations show characteristics of all four recognized types, but that one

²⁵⁹ D. Marchand, W. Kettinger, and J. Rollins (2001). *Information Orientation. The Link to Business Performance*, Oxford University Press, New York, chapters 5 and 7, resp. pp. 98–130 and pp. 157–182. Information Orientation is a framework for evaluating IT strategies to determine the degree to which a company implements and realizes the synergies across three information capabilities: information behaviours and values, information management practices, and information technology practices.

²⁶⁰ Choo c.s. (2006), pp. 494–495. My separation between behaviours and values is based on the description in Choo's paper, but that description is multi-interpretable. This set of behaviours and values is the only one I could find that could be associated with 'information culture'. It is used, with different interpretations and in different contexts.

²⁶¹ Choo (2016), pp. 164–166. Based on Cameron and Quinn (2011), pp. 52–53.

or two types would dominate. This is consistent with organizational culture typologies.²⁶² Gillian Oliver applied the information culture concept on (information and) records management and constructed a framework to help with identification of information culture assessment characteristics from a records management perspective.²⁶³ She defines the concept as ‘the manifestations of organisational culture that portray values and attitudes to information in organisations’.²⁶⁴ Her views on information culture are based on Hofstede’s typology of cultural dimensions and his view that national cultures are determinative of how people behave.²⁶⁵ The framework presents a valuable assessment methodology for analysing *records management* within organizations and offers, partially, a view of a ‘records culture’.²⁶⁶ As such, Oliver’s views are unique and innovative, but they do not exceed the second level of Schein’s framework and do not offer a ‘complete’ interpretation of the concept.

²⁶² Choo (2016), p. 165. See also note 107, especially about the usefulness of typologies for analysing organizations.

²⁶³ G. Oliver (2011). *Organisational Culture for Information Managers*, Chandos Information Professional Series, Chandos Publishing, Witney. The framework is identified here as ‘framework for information culture assessment’ but is also called ‘information culture framework’ (at pp. 130 and 139), which basically is something different. In Oliver and Foscarini (2014), ‘information culture framework’ is used.

²⁶⁴ Oliver (2011), p. 4.

²⁶⁵ Oliver (2011), Chapter 2, pp. 33–64.

²⁶⁶ Oliver (2011), Chapter 6, pp. 125–144, and Oliver and Foscarini (2014), p. 22. In essence, Oliver (2011) and Oliver and Foscarini (2014) are only interested in records creation, use and management and employee attitudes towards records. They are not, primarily, interested in ‘information culture’ and neither in information behaviour within an organization.

Information culture?

Lars Höglund argued that there was little (organizational) use for the concept when not used as part of organizational culture or climate.²⁶⁷ I tend to agree with this interpretation. Analysing literature reviews, the common idea is that information is a valuable asset that (1) affects business performance, and (2) is a cultural trait.²⁶⁸ The assumption is that using and sharing of information are indicators of information culture. The concept is used (1) as an *explanatory framework*, in which information culture is an independent variable, based on the assumption that organizations have a distinct ‘culture’ that conditions the approach to information; (2) as an *analytical and evaluative tool*, based on the assumption that information culture can be measured by operational criteria for assessment; or (3) as a *normative standard*, directly following out of the previous one and based on the assumption that an analytical and/or evaluative framework can be used as universal standard for ‘ideal’ information cultures. The framework’s criteria are assumed to grasp the characteristics of information culture. Mostly, that is not what they do. As an example: the criteria in Svärd’s evaluating tool, based on the information culture (assessment) framework developed by Oliver, do not evaluate information culture characteristics but *records management* attributes (as could be expected by using this framework).²⁶⁹ The framework is defined based on criteria derived from

²⁶⁷ L. Höglund (1998). ‘A case study of information culture and organizational climates’, *Svensk Biblioteksforskning/Swedish Library Research*, Vol. 3–4, pp. 73–86.

²⁶⁸ I have restricted myself (because of its repetitiveness) to Choo, Bergeron, Detlor, and Heaton (2008); Sundqvist and Svärd (2016); and P. Svärd (2014). ‘The impact of information culture on information/records management’, *Records Management Journal*, Vol. 24, No. 1, pp. 5–21.

²⁶⁹ Svärd (2014), p. 20.

records management practices and standards and is used to evaluate something different. As a result, the evaluation or assessment is not as much about '*the way things are done*' but more about, for a very specific perspective, '*the way things should be done*'.²⁷⁰ The objective of most of the developed frameworks (especially when used as an analytical tool or a standard) is change, which is almost impossible to realize without changing perceptions of employees.²⁷¹ Svård's criteria evaluate (*shared*) *perceptions* of employees regarding records management. These criteria evaluate *relational climates* and *the existing individual and shared perceptions (and behaviours) of employees regarding records (and archives)*. In stead of analysing information culture, the existing relational climates are assessed. It is an evaluation of 'the way people perceive ... the characteristics of their environment', regarding to information, records, and archives.

I do not believe information culture to be an independent variable. I do not deny the possibility of an information culture to be an integral part of organizational culture and climate. I think there are values, espoused beliefs, norms, and desired behaviours regarding information, records, and archives (for instance, 'information is a business asset'). I think there are artefacts that concern information and information management. It is possible there are basic assump-

²⁷⁰ As could be said, for instance, for information security culture: A. Da Veiga and J.H. Eloff (2010). 'A framework and assessment instrument for information security culture', *Computers & Security*, Vol. 29, No. 2, pp. 196–207 (although here all levels of Schein's framework are addressed.)

²⁷¹ A crucial problem with Oliver and Foscarini's (2014) view is that, although they acknowledge people and their behaviour to be their core problem, they, seemingly, neglect behaviour. (Organizational) Behaviour is not part of the information culture (assessment) framework. They offer (mostly superficial) ideas for assessment techniques and training, but do not pay attention to the psychological perspectives towards behavioural change.

tions, but I doubt they are ‘stronger’ than the (shared) psychological perspectives of individual employees (for instance, ‘business information belongs to the organization’ versus ‘information as a personal commodity’).

Although there are assumptions, values, beliefs, desired behaviours, and artefacts from organizational culture integrated within the routines of a relational climate/subculture, it seems that information escapes those cultural components. Information cultural aspects of organizational culture seem to be as good as *absent* in daily organizational practice of most organizations, as has been shown in previous chapters. In the relational climates/ subcultures, there may be a shared values, beliefs, norms, and desired behaviours, some of them related to how to process and manage information, but those may differ among climates/subcultures. A centralized ‘information culture’, however, is mostly absent, unshared, or, at best, fragmented.²⁷² This results in information behaviour that depends on the agreements between employees within relational climates/subcultures. These agreements can diverge from organizational desires and can even lead to information behaviour that goes against the espoused values and beliefs of organizational leadership. When organi-

²⁷² I encountered many organizations in which centralized values, beliefs, and desired behaviours were continuously espoused by organizational leaders, but not enforced in practice. As a result, there are most often four or more ‘ways of doing things.’ A Dutch government organization, following a model of integral management, had seven different divisional subcultures, but its twenty-three different departments had nineteen different ways of managing records. The divisional managers continuously communicated the espoused beliefs and values of the organizational leadership, but in practice they were neglected. An employee working in two different divisions told me her departments did ‘manage information in such different ways it is difficult to believe they belong to the same organization, even while we use the same systems’.

zational leaders and managers do not show consistent and coherent behaviour aligned with organization-wide espoused information behaviours, values, and beliefs, undesired behaviours will be quite common within an organization.

The 'weakness' of informational cultural aspects within organizational culture results in information behaviour that, at best, is guided by shared perceptions in teams, work units, and/or places of work. From a leadership point of view, information behaviour seems unguided, fragmented, and extremely difficult to influence. 'The way things are done' regarding to records and archive are not aligned with the espoused belief of information as a business asset that organizational leaders like to present to the 'outside world.' Records are embedded in the archive using centrally developed metadata schedules and archival structures, 'losing' the original context of relational climates/subcultures, and adding another, consciously constructed and configured level of subjective context aligned with the image the organization wants to present to 'outsiders.' And as such, the archive is, again, influenced by behaviour, now to represent an image of the organization as it, according to organizational leaders (or its records managers or archivists), should be.

6

CONCLUDING REMARKS

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Success or failure of (the implementation of) EIM depends directly on the component 'organizational behaviour' of the theoretical framework of the 'Archive-as-Is.' To understand and manage behaviour, employees have to be known in their psychological, social, cultural, political, professional, and economic contexts. The primary and secondary socialization processes in addition to the individual psychological drives are very important for understanding information behaviour.

Within organizations, employee behaviour is predominantly influenced by their perceptions of their psychological and relational climates, perceptions that are defined by their personality types or, to use Hofstede's terminology, their 'software of the mind.' When they participate in benevolent relational climates, are feeling psychologically safe, and perceive their 'psychological contract' to be accepted, they willingly share their perceptions with others within those climates (be they formal or informal structures). They will be willing to accept the shared norms, behavioural rules, values, and beliefs of their relational climates, and even accept historically grown 'ways things are done' within their team, work unit, or place of work (which defines the relational climate also as a subculture.)

Employees will even accept organizational assumptions, values, beliefs, and behavioural rules, and use organizational artefacts, if these are (or become) part of the relational climates (or subcultures) they are part of. Some basic assumptions, values, and beliefs from organizational culture have to be part of those climates, otherwise there would not be an organization. How 'stronger' the organizational culture, the more the relational climate will act as a subculture within the organization, the more the subcultures will be alike in assumptions, values, beliefs, behavioural rules, etcetera, and the more employees will show the desired behaviours organizational leadership promotes. Is an organizational culture 'weak', organiza-

tional leadership could use Schein's culture-embedding mechanisms to strengthen it. If organizational leaders communicate clearly, consistently and coherently show desired values, beliefs, and behaviours (and enforce them), employees may perceive this model behaviour as consistent with espoused values, beliefs, and behaviours, and may be willing to integrate them in their own behaviours. Enforcement, however, can be a double-edged sword, because, when not perceived as balanced and fair, it can affect the perceptions of psychological safety, and as a result affect behaviour negatively.

Information behaviour within an organization is influenced by changing perceptions and interpretations based on psychological and/or relational climates, on the different perspectives of organizational culture employees experience, the mental models they share, their psychological contracts, their social identification with the organization, and/or the managerial corrective consequences of negating desired behaviour. When the model behaviour as shown by organizational leadership does not make sense, because it is not aligned with the shared mental models in relational climates or the espoused beliefs and/or basic assumptions that in teams, work units, or places of work are believed to be part of organizational culture, confusion, ambiguity, and resistance will be the result.

Information behaviour in organizations is characterized by the treatment of knowledge and records as a personal commodity, the misuse of communication channels, and a lack of discipline. These are primarily caused because organizations and their leaders have neglected the bottom-up psychological dimensions of employee behaviour (influences like psychological ownership, and the way employees are (un-)consciously appraising information). The top-down influences of organizational culture can be quite dominant, but seem to be absent for organizational assumptions, espoused values, beliefs, and desired behaviours regarding information and infor-

mation management. In organizations with ‘weak’ cultures and/or ‘weak’ organizational leaders, ‘the way things are done with information’ is different between teams, work units, and places of work, depending on the shared agreements about ‘how to organize the information value chain’ within their relational climates/subcultures (absent, unshared, or fragmented information culture). Organizational leaders have forgotten that (according to the second proposition of organizational behaviour), organizations are social systems and that social relations and social dynamics are part of the way employees work and make decisions. ‘Over-organizing’ control systems with procedures and rules to every infraction made, prospectively implement them in ICTs, and neglecting social relations and practices, overstretch the limits of control. Employees resist to overbearing systems that try to restrict them to defined procedures, try to limit social dynamics, and try to make them subservient to the ICTs used. Employees perceive threats for their psychological contract, their psychological safety, their relational climates, and so on. They, also, perceive their leaders to (1) behave inconsistently and ambiguously and (2) show little to no attention to the way they ‘retrospectively inscribe’ the ICTs and control systems used.

To understand information behaviour, for EIM an in-depth knowledge of organizational climate and culture is crucial. Combining Schein’s model of organizational culture, Hatch’s symbolic-interpretive perspective, Martin’s perspectives of organizational culture, Alvesson and Sveningsson’s ‘every day re-framing’, and the psychological and relational climates of employees would allow for an explanation for the behaviour of employees regarding to records and archives.

What does this all mean for the implementation of EIM, for records and organizational archive?

An analysis of psychological aspects within organizations is extremely important. Recognition of the different shared perceptions within the relational climates/subcultures (especially related to knowledge and records) is necessary. Records managers and archivists need to recognize the different ways in which the information value chain is organized within an organization, and develop metadata schedules aligned with the information management in those environments. Strategies for EIM need to accept that social relations are crucial for control and that organizations operate like complex adaptive systems. For that reason, flexible and adaptive EIM-systems are necessary that allow for different configurations of the information value chain within different subcultures of the organizations, connected with a back-end ICT-infrastructure in which records (and their metadata) are subject to 'automatic archiving' based on the processes and activities of the information value chain of the team, work unit, or place of work. Records and their metadata are automatically stored in the organizational archive, embedded with the contextual metadata of the organizational archive that documents the organization at large. The information value chain will automatically manage this archive and the records within.

An archive always will be a subjective 'mirror' of what 'really' happened. People decide what to do, what and how to embed records in the organizational value chain. They decide how to inscribe, register, keep, destroy, neglect, etcetera, *before* embedding it into the organizational value chain. The 'stronger' the perceptions of an organizational culture are, the 'stronger' organizational leadership is in enforcing employee perceptions to be aligned with this organizational culture, the 'easier' it will be to stimulate employees to show desired information behaviour and to use EIM-tools. EIM-tools need to 'seduce' employees to use them. But even then, behaviour may be not aligned with organizational desires. Managing be-

havioural dimensions is one of the most important tasks of organizational leaders. They need to be equilibrists, to find a balance between managing structures, business processes, governance, and performance, and managing organizational behaviour. But they need to continuously educate their employees in organizational desires, values, assumptions, and behavioural norms and, when necessary, need to use 'every day re-framing' to slowly change perceptions, especially on 'information'. That is necessary if they want to realize the most important (and, until now, unrealized) 'basic assumption' of 'information culture': 'information is a business asset'.

