20 50

connext
SOCIAL FUTURING CENTER

PETRA ACZÉL

SOCIAL FUTURING – A DISCURSIVE-CONCEPTUAL FRAMEWORK
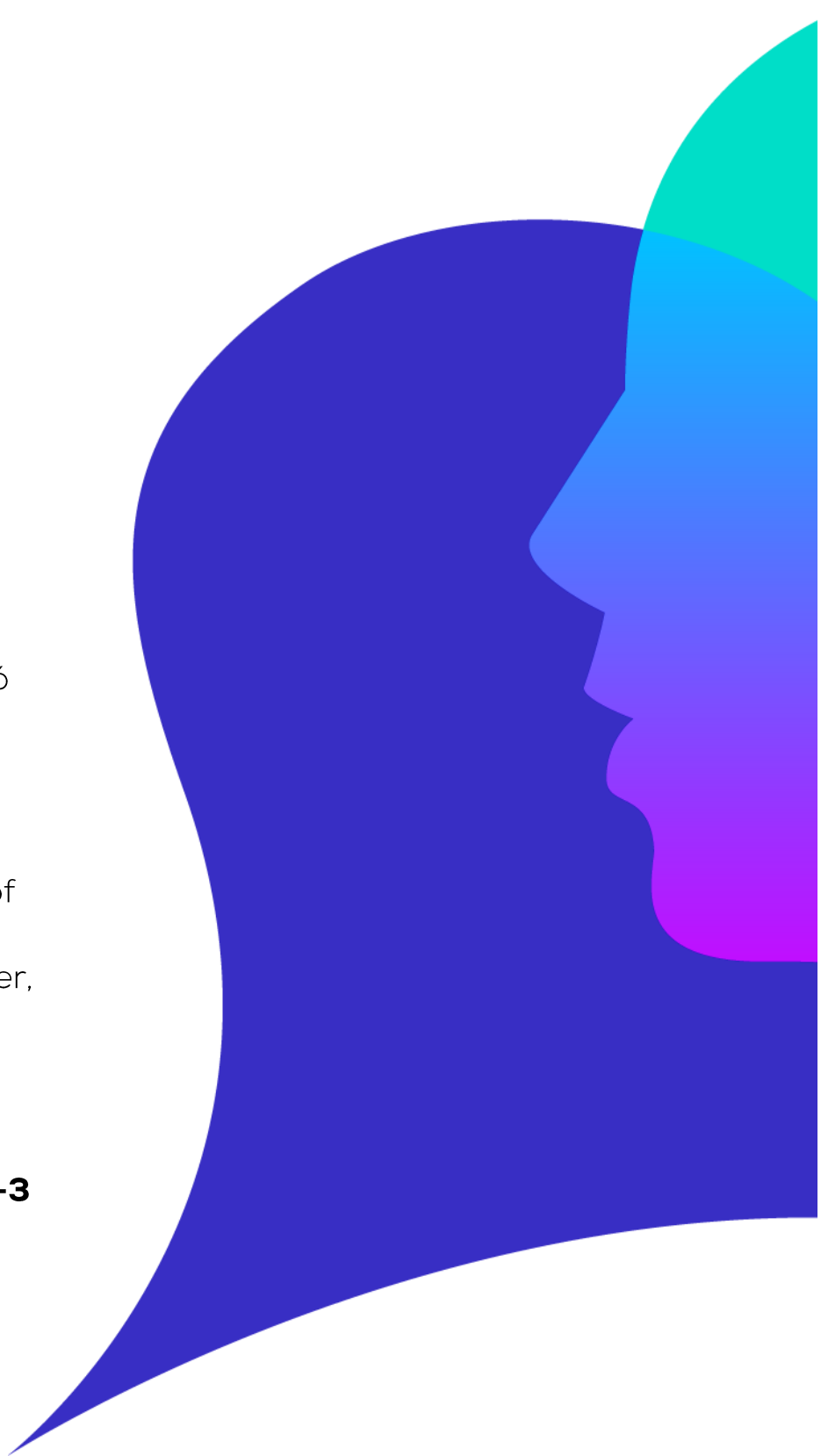
1. PROLOGUE

"Probably no society has ever been more concerned with meaning than the one in which we live. Never before have so many people felt such an urge to make sense of the world they live in and of the lives they are leading. They find this sense not so much in themselves as in the discourse, which is the entirety of everything that has been said and written by the members of the discourse community to which they owe their identity. It is communication, this verbal interaction with others, which reassures them about their notions and ideas, and in which they find interpretations they can accept, rework or reject, and in which they can recognise themselves."

Teubert 2010: 1

The term *social futuring* is a neologism that locates a new meaning. But where does it do so? Partly into social discourses and procedures, partly into common interpretations, and partly into individual mindsets. Every new item of language raises the problem of the relation between language and meaning, and its discursive aspect. What causes a new term to denote a concept and how does it acquire a meaning? Where does it get its sense from, and why, how, and in what situations do people start to use it?

This paper sets out to compare the neologism *social futuring* with concepts (terms) that already exist in academic and professional discourses with respect to its two semantic categories, 'ability' and 'future'. Comparing the meaning of *social futuring* with the concepts examined, the paper seeks to answer to the following questions:

- What does social futuring refer to? (What social cases, phenomena, and behaviours are taken to be part of the term?)
- What does social futuring express? (How is it conceptualised and defined?)
- What is meant by social futuring (inside and between disciplines, areas of expertise, i.e. contexts and fields of discourse)?

This analysis aims to reveal conceptual and discursive differences in order to present the characterizing features of the meaning, discourse, and communication of the term *social futuring*.[1]

---

2. DESIGNATION AND MEANING

The millennium-old literature on the views about the links between language and meaning includes some illuminating insights and fundamental disagreements. This paper, however, cannot be meant to spell out the debates between those views or to take sides in them. Within this conceptual-discursive framework of social futuring, I limit myself to present the three main approaches to the link between language (linguistic expression) and meaning.

The first view states that meaning is in language itself and the expression or (signifier) carries the information so objective realia, i.e. the objective outer world, can be approached and described using conventions. In essence, meaning is a correspondence between symbols (words) and events and things that occur in the world, a relationship of reference. An essential aspect of this objectivist approach is that conceptual systems reflect the structure of the world that is independent from humans. From this aspect, we should take the term *social futuring* to mean a correspondence with things objectively existing and happening in the world as an answer to the question "What does *social futuring refer to*?"

The other view states that meaning exists in the human mind and has a conceptual nature, and that our words represent our mind and thinking, the categories[2] and frames that appear in it. This

---

[2] On the cognitive view, people place things and events around them in different "meaningful »groups«, i.e. categories. (…) Categorisation is an inborn ability shared by all people, wherever they live and whichever culture they belong to" (Kövecses–Benczes 2010: 25). Cognitive psychology usually considers it as a process of five steps. The first is to identify the structural characteristics of an entity. The second is to search for categories/concepts that are structurally similar to the entity. The third is to select the category/concept that is most similar to the entity. The fourth is to draw conclusions about the entity. The fifth is to store information about categorisation (Barsalou 1992: 26, cited by Kövecses-Benczes 2010: 26). The process starts by identifying the characteristics that constitute the concept, continues by making a comparison, and ends by drawing a conclusion. In other words, it takes the logical activity of analysis, verification, and creativeness to arrive at a definition. A classical model of this was devised by Aristotle in *Organon* (*Categories, Hermeneutics or On interpretation / Categories, De intrepretatione*, 1963), by which entities in the world can be defined by classification as genus and species and by identifying their necessary and sufficient conditions. Categorisation is described in different terms by the prototype model, which offers an explanation for concepts that are harder to comprehend for the classical method. In prototype theory, the members of a category are not linked by characteristics but, to use a term by Wittgenstein, by "the principle of family resemblance" and they are parts of sets organised around the prototypes (Wittgenstein 1986: 31?-32e). Simply put, a prototype is what springs to people's mind when thinking of a

cognitive/experientialist view does not look at language as a special inborn capacity but as a function of the mind; an operation that represents our conceptualisation. In this view, meaning (an idea) matters more than words and we do not (only) communicate words but also concepts.[3] In this respect, the meaning of *social futuring* is an adjustment to the existing conceptual categories and frameworks or the consequence of creating a new conceptual framework. Thus, the question on the cognitive view is "What does *social futuring express* and what forms and functions of thinking can be used to describe it?"

---

concept, in fact it is the "the best example". But the concept itself is not the prototype. The properties of the prototype are necessarily true for the characteristic cases of the given concept but not for all cases. A concept, then, is more than prototypical properties. The additional element is the core of the concept, which includes the critical properties of belonging to the prototype's category. Without core properties, a concept can be similar to the prototype but it will be essentially different (a nice mature woman with grey hair who loves children is not a 'grandmother' if she has no children who are parents themselves. Likewise, a penguin does not chirp yet we conceptualise it as a bird) (Armstrong–Gleitman–Gleitman 1983). Psychology, then, essentially connects the cognitive model of classical categorisation with the prototype model. The question whether prototypes are abstract mental representations or situative structures created during speech and expressed by language cannot be answered clearly. However, it is certain that research has observed a high number of individual and cultural differences in the prototype-based creation and interpretation of concepts. The third way of categorisation may be giving examples as we can interpret (and express or illustrate) a concept with specific examples or with their mental images. According to classical categorisation, the concept of social futuring is a social entity's or agent's ability to benefit from future changes. According to prototype theory, its distinctive features include a social entity that acts, an ability (potential and possibility), and future changes. To categorise by examples, we can use the narratives of organisations, communities, and countries about the way they previously coped with (in the normative sense) learning and success, and assumed risks.

[3] Reflections and research on the link between language and thought have produced a number of basic theses in philosophy and statements about language in the past 2.5 millennia. Max Black (1998) gives a highly vivid caricature of two opposing views. Essentially, in one of them, thought arises first and is put into words only afterwards. What we think is independent from the language expression: language and thought are separable from each other. Their relationship is like clothes or dressing up to the body. A body is what it is without clothes and words give it some character but clothes do not become its actual part. Likewise, thought is not built from language and the other way round. This can be called the dress-model. The other view, diametrically opposed to the first one, holds that separating thought from the language expression is like separating a being from its body as no idea can exist without expression. Just as musical notes express a melody, language expresses thought. In this aspect, thought in words is not dressed but is made and becomes real. Black calls this the melody-model (Black 1998 (1968): 67–74). Benjamin Lee Whorf goes as far as speaking about the primacy of language in the division of experiences and attributing meaning to them, with the claim that language is a conventional system which arranges the world and in which our experiences can mean something (Black 1998: 74).

The third view looks at meaning from the perspective of human symbolic interaction and the discourse that arises out of it[4]. As its foundation, it considers the use of language as an observable social human behaviour that is adopted as an interaction in the given situation and offers meanings to the experiences that we acquire in that situation.[5] The discursive view holds that human experiences can be communicated with words (and representations) provided by social discourses. In other words, there is no human conscience or meaning outside discourse.[6] Discourse is a social phenomenon, the social use of language in historical, cultural, and social contexts ('language in action'). Discourse can also be interpreted as a social language variety (register) that expresses and implements synchronic and diachronic contexts, scenes, structures, roles, situations, and social relations, norms and value systems, and of which our meanings (interpretive frameworks) derive. Discourse looks at language as an entity or process that exists in between, and not inside, people. On this view, then, meaning is not supplied by its relation of reference to objective reality, is not carried by language or the mind but is generated in human relationships, interactions, and social participation. Discourse is something through which reality becomes accessible. However, such reality is not independent and objective realia are only a social construction; this is maintained and shaped by discourse. On this view, the questions about social

---

[4] Discourse theories and Critical Discourse Analysis have an extensive literature. This summary refers to the following authors: Foucault 1972, 1982, Halliday 1978, Blommaert 2005.

[5] "Symbolization constitutes objects not constituted before, objects which would not exist except for the context of social relationships wherein symbolization occurs. Language does not simply symbolize a situation or object which is already there in advance; it makes possible the existence or the appearance of that situation or object, for it is a part of the mechanism whereby that situation or object is created. . . . Meaning is thus not to be conceived, fundamentally, as a state of consciousness, or as a set of organized relations existing or subsisting mentally outside the field of experience into which they enter; on the contrary it should be conceived objectively, as having its existence entirely within the field itself" (Mead 1934: 78).

[6] "Meaning is not what happens in our individual, monadic minds; it is something that is constructed within the discourse. Of course, each of us has individually learnt what words mean. But unless we actually use them in our contributions to the discourse, this passive knowledge will leave no traces. Second, we know nothing about the mind, and there is no way to access what may be in it. Nobody has ever seen a mind. A mind is something we have successfully constructed as an object of the discourse, and as such it serves many good purposes. But we have no way to find out whether minds occur as objects of the reality outside of the discourse, and they are not even objects of a discourse–internal reality shared by everyone. We use the construct 'mind' to give a name to a virtual interface between our body and our symbolic, meaningful behaviour. Mental concepts, even if they existed, would not be accessible to any empirical investigation of meaning" (Teubert 2010: 7).

futuring are "What *do we mean by it* in a community or scene? What topics, modes of speech, and situations can we relate it to and why?"

Social futuring, then, may mean a part of reality, a set of abilities to manage and create the future that exists and for which we have conventionally used this designation. This set of abilities belong to a social entity and enables it to enact and cope with future changes (in proactive, active, and reactive ways) (Szántó 2018). Also, the term may mean a new framework for our concepts (categories) related to the future and abilities. It may mean a vision, a strategy, a scenario, or foresight (Szántó 2018, Monda 2018), and the related social agency and its ability. Finally, it may signal the introduction of a new dictionary in discourse about the future so that we can think, talk and, under certain conditions, decide about a normatively defined future social existence and its agents and areas (Csák 2018, Ábrahám 2018).

When talking about the Social Futuring Index, we can also derive meaning from the same three aspects. The term *Social Futuring Index* may mean, under the appropriate truth conditions (conceptions and methodological procedures), the objective, actual ability of a social entity to cope with future changes. In the cognitive paradigm, *Social Futuring Index* may be a term that establishes and reinforces mental and conceptual categories and frameworks of the future (future changes) (a meaningful incentive and category shaping factor of strategic perspectives and planning, Monda 2018). In the discursive paradigm, the term becomes a factor that creates discourse, i.e. a new term by which interactions and hence social constructions and actions may change, new discourse fields may emerge, political decisions may be taken, normative frameworks may take shape and gain or lose strength (Csák 2018).

In the light of all this, coining a new term is more than just adding another entry to the dictionary or terminology. This is because it affects the mind, reality, action and, as a consequence of their dynamics, the past and the future, and society (its perspectives and areas, Csák 2018). From a semantic point of view the term includes the act of signifying, the act of arrangement from a syntactic point of view, the act of action from a pragmatic point of view, and the

virtue of participation in the shaping of common affairs from a political point of view.

In what follows the terms and, at times indexes, of *resilience*, including optimism, *future orientation*, and *future proofing* will be dwelt upon in relation to social futuring, within the categories of 'ability' and 'future', showing synergies and characteristic differences. These are singled out as key concepts of the individual's prosperity, the future orientation of society and culture, and strategic planning (especially technological planning): the ecological thinking about social existence, to put it concisely. Also, these three, already existing terms provide a fine example of the *category elements*[7] that also appear in the meaning (interpretation) of social futuring: *change* and *the attitude to change, vision as a condition, entity/agency* (individual, social or cultural level or of an instrumental type), and *(motivated/strategic) action.*

---

[7] The comparison of the four concepts is illustrated in Tables 1, 2, and 3.

3. ABILITY

Eufrosinia Kersnovskaya spent four years writing her memoirs about the period 1941–1953 in 2,200,000 characters, accompanied with 680 drawings. She wrote three manuscripts in samizdat copies. Her gargantuan work is made even more exceptional by its subject matter, the story of a woman born to a family of gentry, working as a farmer in Bessarabia, exiled to Siberia as a Gulag convict, then sentenced to death for her escape, later commuted to labour camps; the fate of a person who never asked for or was granted clemency, and was not rehabilitated. Excerpts from the book, filling more than 600 pages in print, were first published in 1990 in *Ogoniok* then in *The Observer* but Kersnovskaya never saw the first complete Russian edition after 2000 as she died at the age of 86 in 1994. Her book *How Much is a Human Worth?* is nowhere near as famous as *The Gulag Archipelago* by A. I. Solzhenitsyn, holder of the Nobel Prize in Literature, although Kersnovskaya did not do poorer than the renowned Russian author with regards to her term of conviction or experiences. Admittedly, her writing lacks any political character, purpose, or interest. Kersnovskaya's novel is not a description of survival techniques and may not be considered as a prison break guide. It is about a whole life (Csák 2018, Ábrahám 2018), even if it had to be spent working in a Siberian sawmill, a prison cell, a mine, and a pathological unit. Kersnovskaya's story is a chronicle of flexibility that describes the future in a value-saturated way and human life in a normative way, the presentation of an ability for which science has a special term: *resilience*.

3.1. RESILIENCE (FLEXIBLE COPING)

In physics, *resilience* <u>refers to</u> materials or objects, and their properties, that regain their original shape after they are bent or forced. In ecology, it means the capacity to resist perturbations, harms, and dangers and to achieve rapid recovery. In people, it refers to "the ability to "bounce back" after encountering difficulty" (Southwick–Charney 2010: 6) and <u>expresses</u> creative and flexible coping that involves learning and helps people to find their way back to their original or better state of mind in the face of a difficulty

(Vaillant 2002). In physics, ecology, and psychological discourse, then, *resilience* <u>is used to mean</u> a flexible, beneficial adaptation to traumas, stress, and difficulties, which sometimes involves learning and development. The next sections will spell out the main referential, defining, and interpretive characteristics of scientific discourses that use the term *resilience*.

In the case of an individual or community, *resilience* denotes a special type of coping strategy. Coping strategies are responses of intellectual, emotional, and behavioural components that are efficient in reducing unwanted (e.g. psychical or physical) burdens (Synder–Dinoff 1999). This ability may be better in some areas of life and worse in others. The individual may have a hard time coping with work-related troubles and stress but may manage family problems with greater ease, flexibility, and benefit for themselves. This ability may also change with age but its development and existence do not only depend on the individual. Healthy adaptation is greatly determined by social relationships, the processes of socialisation, institutional structures, and cultural forms. The tests and indexes developed to measure personal and age-related resilience (Connor–Davidson Resilience Scale, Response to Stressful Experiences Scale, Dispositional Resilience Scale-15, Resiliency Scale for Children and Adolescents, RSCA Global Scales and Index) use self-report or assessment primarily to find out how people cope with the challenges of reactivity, assertiveness, attachment, control and problems, each of them considered as a factor of resilience (Prince-Embury 2008, Prince-Embury – Saklofske 2012).

Southwick et al. (2010) interviewed resilient subjects, people like Kersnovskaya who had experienced exceptional and dramatic events in their lives, and analysed their responses to identify the main sub-skills and elements of resilience. They identified ten[8] coping aspects and called them resilience factors, including realistic optimism, facing fear, moral compass, religion and spirituality, social support, resilient role models, physical fitness, brain fitness, cognitive and emotional flexibility, and meaning and purpose. All of these

---

[8] Seligman et al. developed the details of the concept of resilience for the US Army as an organisation which members are usually exposed to a great deal of traumas and stress. Developed to measure resilience, the Global Assessment Tool (GAT) detects fitness in the fields of emotions, family relationships (attachment), social skills, and spirituality (Vie et al. 2016).

factors are involved in the research of resilience as measurable and testable personality traits, characteristics, and skills (e.g. you can test the generation and level of noradrenalin or norepinephrine, and you can use psychological tests, such as the Life Orientation Test, Optimism Test, and measurements, such as the Global Assessment Tool-GAT).

3.2. OPTIMISM

The property and conceptual category of optimism is a key component of the ability of resilience. It is used to mean a future-oriented attitude which includes the individual's hope and confidence that the events to happen will be advantageous for her. Such attitude may be a non-situational, stable personal trait (dispositional optimism) that usually characterises individual views about the future and it may be situational (situational optimism), which becomes manifest in certain situations but not in others.[9]

The intimate link between resilience and optimism is primarily reflected in the way as people think about the causes of things (events) that affect them and as they explain the whys. Seligman (1995, 2006) calls this way of thinking *explanatory style* (cf. Dweck 2016) and contends that it develops already in childhood and does not change even in adulthood without intervention. Depending on its type, attributive thinking may make the individual active or passive with respect to a future event. This was also confirmed by the experiments of learned helplessness.[10]

Learned helplessness is a response of giving up based on the experiences of an individual or a community: a behavioural reaction

---

[9] Interview surveys (Southwick et alii) show that either of these two types may be sufficient and efficient for building resilience.

[10] The test involved three groups. One was exposed to a heavy noise burden that the members were unable to end and that ceased by itself whatever the members did. The other group was able to eliminate the noise by pressing a button four times. The third group had no such acoustic effect. In the second stage of the test, all three groups had a chance to control the noise with a device. They only had to do something for it. As was shown by the findings, the group that previously had been able to control the noise and the one that was not exposed to such effect learnt again how to eliminate the noise. The group that had found it could not control its situation by any means this time voluntarily adopted a passive attitude and tolerated the noise (Hiroto, 1974).

derived from the conviction, developed by learning or experiencing, that whatever the person(s) do(es) they may not influence their situation, the outcome of the events. Of course, it makes a difference what arguments a person uses to justify that their activity makes no sense. Rotter (1966) suggests there are two sources of causes in human thinking: in one, the individual thinks their own actions will lead to the outcomes of a situation (internal control); in the other, the individual(s) attribute(s) outcomes to external factors and think they do not depend on them but luck, accident, or fate (external control). In the experiments with learned helplessness, the latter one was activated by the giving up demonstrated in the test situation (subjects that had previously been unable to eliminate a disturbing noise in any way did not even give it a try in a subsequent situation). Scholars found something similar in the tests of verbal predictions about success in the performance of skill tasks (Klein–Seligman 1976). In such cases helpless subjects hardly changed their expectations as they attributed success to external circumstances even in tasks in which they could have used their abilities. They thought, then, that even cases that could be solved with their abilities are a matter of chance. They had this idea despite the fact that in the post-test questionnaires they gave similar answers as non-helpless subjects about the significance of a person's own abilities and actions in a skill task (Abramson–Seligman–Teasdale 1978).

When explaining something bad or good that happens to them, people usually express their ideas in three dimensions: permanence, pervasiveness, and personalisation.[11] Permanence is the factor of time: the extent to which a person considers an event as permanent. If she considers a bad state or event as permanent, she will more readily stop taking actions against/for it. Scholars look at people's

---

[11] The tests of Carl Dweck (2016) with school girls and boys revealed that in addition to the narrative mode of attribution, teachers' praises and qualifying communication have a key role in shaping adaptive (growth) or non-adaptive (fixed) mindsets. After a failure, the girls said they were "not good at" the task while the boys said they "weren't listening" or "didn't care about" the task. The former fixes the mindset and considers the mistake as the individual's failure thereby reducing their willingness to act or change. The latter is just the opposite. Dweck's tests showed that this difference lies, among other factors, in the reasons given for the teacher's praise or reprimand in school communication. Girls are often assessed by things like "You're not really good at math" and boys by things like "Why weren't you listening when you had to count?" This communicative and socialisation effect/problem may be especially important in education for jobs that require IT skills in the fourth industrial revolution and in the support of social clusters and groups that are considered to be particularly exposed to the loss of certain jobs.

statements and communication, and what permanence they conceptually refer to, as a starting point. The statement "Hungary is losing population" expresses permanence and indeed some unstoppable continuity whereas the statement "Hungary will be losing population until we do something against it" refers to a current, changeable, and ultimately temporary situation. In the first case, the sense of permanence considerably reduces the person's (community's) motivation to do something about it right now or in the future. When it comes to good events, permanence has the opposite effect. In such cases a general statement encourages optimism and the ability to act so "We were lucky today" is a less optimist statement than "We're usually lucky."

The other dimension is pervasiveness, the aspect of space. If we look at a bad event as a universal case that covers everything (all elements of the topic concerned), our willingness to act will be considerably reduced when looking for a solution. By contrast, if we specify its place, we can be more willing to find a solution. "The Internet is harmful" is a universal statement whereas "The Internet contains both harmful and useful sites" is a specific statement that does not increase helplessness as opposed to the previous one. In the case of events perceived as good, the expression of optimism must again be interpreted the other way round. If the statement universally validates a positive thing, it expresses a higher degree of motivation. For instance, between the statements "I'm good at mathematics" and "I'm a good learner" the second one is more optimistic.

The third dimension is personalisation, which means a person's agency, control, or lack of control. If we consider something bad as the consequence of external events whereas if we consider something good as the outcome of our own acts, it can express an optimistic style. The reverse of this may refer to pessimism or helplessness, as in "I haven't studied enough" vs. "No one cared about my education", cf. "I only studied well because of my teachers" vs. "I was always good at studying" (Seligman 2006).

While optimism usually promotes the willingness to act and the search for solutions, no one can behave resiliently without actually

recognising a situation and rationally identifying negative things in the face of a specific problem. Therefore, scholars (Schneider 2001, Reivich–Shatte 2003, Southwick–Charney 2010) emphasise the importance of realistic optimism. Realistic optimists also take into consideration any negative information that is relevant to problem-solving and do not focus on keeping their good feelings, often biased and unsupported by checking reality, that optimism provides. In terms of resilience, then, realism and optimism cannot be contradictory concepts, especially if you think of economic and political institutions and agencies.

So far this presentation of realistic or resilient optimism has focused on the individual. At the same time, in addition to ecological, physical, and psychological discourses, optimism indicators and indexes have also appeared in business life, economic planning, and strategic decision-making. These also lay great emphasis on the comparison of perspectives and expectations with the actual situation. Business optimism indexes convert to figures the responses and data of companies to economic performance and the related expectations and perspectives, including expectations about sales, profit, the number of staff and orders, general economic perspectives, actual revenues, planned capital investments, expected credit conditions, and human resource hiring plans.[12] Clearly, these indexes do not or barely apply psychological research findings and do not measure/indicate pervasiveness, permanence, or external–internal control. At the same time, they rely on foresight to the future to express a business agent's optimism. In other words, optimism also expresses the future orientation of resilience.

---

[12] A few examples: Dan and Bradstreet's Index of Business Optimism measures optimism among Indian business professionals. Conducted on a quarterly basis since 2002, this survey explores the expectations of companies and enterprises in terms of growth. The measurement and index provide a picture and short-term forecast of the Indian economy's performance and seeks to offer guidance about the turning points of India's economy. The US Small Enterprise Composite Optimism Index is made by the National Federal of Independent Business (NFIB) with monthly surveys to find out about the status of small enterprises. The IBD/TIPP (Investor's Business Daily – TechnoMetrica Market Intelligence) Economic Optimism Index is a monthly poll that rates the relative level of economic condition in the US, comprised of three sub-indexes: six-month economic outlook, personal financial outlook, and confidence in federal economic policies and procedures.

Less than two decades ago, in 2000, architecture also started to use the terms *resilience* and *future proofing*. In this discourse, resilience for planning is expressed by the following general basic theses:

- Diverse and reliable systems are more resilient.
- Simple, passive, and flexible systems are more resilient.
- Endurance increases resilience.
- Resilience presupposes interruptions (of continuity) and a dynamic future.
- Resilience can be found in and adopted from nature.
- Locally available, renewable or recycled resources are more resilient.

In sum, a resilient built environment:

- uses local raw materials and work,
- uses little energy,
- has a great capacity for future flexibility and adaptability,
- is characterised by a high degree of endurance and reliability,
- is responsively planned in environmental terms,
- is sensitive and responsive to change as a characteristic,
- exhibits a high degree of diversity in its components and characteristics.
(Applegath et al. 2010, Rich 2014, cf. Kocsis 2018)

3.3. DEFINITIONS OF RESILIENCE MEASURE AND INDEXES

The Child and Youth Resilience Measure (CYRM/ARM)[13] considers resilience – a socio-ecological construction – as:
a) the individual's ability to gain access to the psychological, social, and cultural resources that provide their own welfare,
b) the capacity of the individual's social system to ensure such resources, and
c) the ability of individuals, their families and communities to distribute such resources in culturally meaningful ways[14].

---

[13] Developed within Canada's International Resilience Project to evaluate child and youth resilience, the Child and Youth Resilience Measure aims to assess resources that may serve to strengthen the ability of resilience. The most important pillar of resilience measurement is the type and promotion of attachment.
[14] Resilience is defined as: I. The capacity of individuals to navigate their ways to resources that sustain well-being; II. The capacity of individuals' physical and social ecologies to provide those

By contrast, certain indexes of resilience in business enterprises and urban development define resilience as:

- the improvement of the ability to minimise the exposure to disasters and changes that disrupt processes, and to manage these in a beneficial way,[15] and
- the ability of individuals, communities, organisations, companies or systems to survive, adapt and progress (in the face of enduring or temporary difficulties of tensions)[16].

3.4. DISCUSSION: RESILIENCE AND SOCIAL FUTURING

The meaning of resilience as reflected by the above definitions and discourses is linked to social futuring in multiple ways. Both refer to an acting entity and express its capacity, potential, and character with respect to changes. Both present agency from the point of view of changes. Just as a resilient subject copes with future states and events, social futuring also describes a social entity's future-oriented activity and management of change. At the same time, the two concepts differ in that resilience typically looks at change as a disruption of some predictable continuity and not primarily as a future event. Another difference is that it usually looks at change as a negative event: a type of shock or stress in discourses that must be tolerated and must or may be coped with advantageously. Social futuring interprets change as an opportunity (risk) within a complex normative framework. A further difference is that social futuring always relates capacity to a social entity and not to the individual. Also, there is a difference in that the concept of resilience does not

resources; and, III. The capacity of individuals, their families and their communities to negotiate culturally meaningful ways to share resources, Ungar, http://www.resilienceresearch.org/files/CYRM/Child%20-%20CYRM%20Manual.pdf, p. 3.

[15] Accordingly, the FM Global Resilience Index shows and measures the level of ability to cope with natural, technological, and cultural disasters in a beneficial way, and the level of stability. Published annually at a national level (130 countries) as the equally weighted composite of 12 drivers since 2017, this index covers the categories of economy, risk quality, and supply chains, and monitors production, political risk level, oil intensity, urbanisation risks, natural hazards/damage exposure, type of natural risks, type of fire hazard, inherent cyber risk, corruption monitoring, infrastructure quality, local supply quality, and supply chain transparency. http://www.fmglobal.com/research-and-resources/tools-and-resources/resilienceindex

[16] Developed by Arup with sponsorship from the Rockefeller Institute, the City Resilience Index had its pilot stage starting in 2016 in five cities. The index contains 52 indicators gained from the evaluation of responses to 156 questions (Rockefeller Foundation 2013).

involve the ability to create the future and to adopt a future vision, whereas this constitutes a proactive type in social futuring (Szántó 2018). Finally, making sure that the agent/entity will survive is a dominant objective in the concept of resilience but without defining any further normative framework for such survival. The concept of social futuring derives the values of coping and adaptation, a new discursive dimension, precisely from its normative framework. The most important conceptual–discursive elements that are similar and different are summarised in Figure 1. The comparison of category elements is presented in Table 1.

Individual, business, and global resilience indexes considerably differ from the Social Futuring Index in measurement dimensions and categories. Firstly, the latter is not aimed at global values as it seeks to indicate the given social entity's ability. Secondly, its (ecological-geopolitical, technological, socioeconomic, and cultural–spiritual) measurement pillars converge the dimensions of resilience indexes and give them multiple layers. Thirdly, with its normative approach to good future and good life, the Social Futuring Index breaks away from mainstream economic and political discourses (dominated by the concepts of risk assessment and competitiveness, among others) and creates its own framework, a new discourse in describing the social potential that is about and shapes the future.

Accordingly, resilience can also be viewed as an important concept associated with social futuring, especially active and reactive social futuring. But conceptually, it is not a synonym of the latter one and cannot replace it discourse–wise.
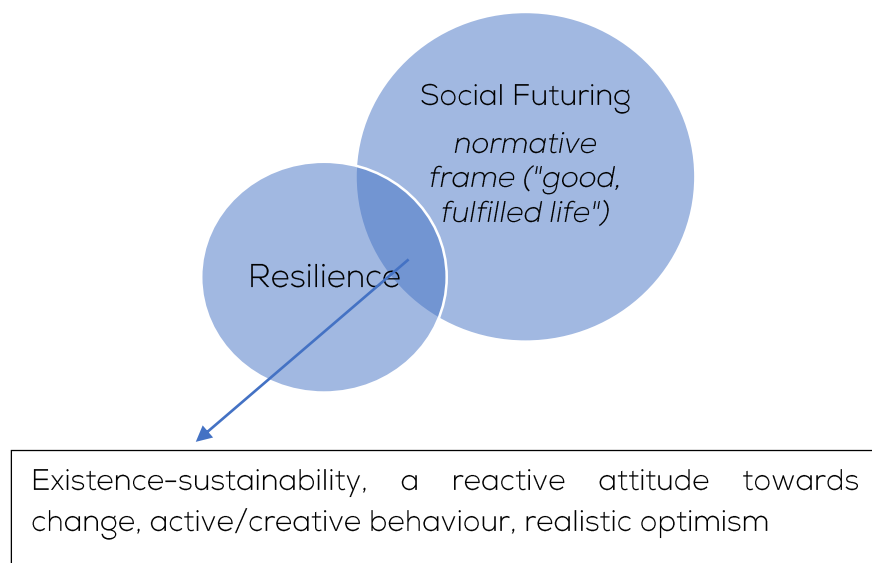
Social Futuring
normative frame ("good, fulfilled life")

Resilience

Existence–sustainability, a reactive attitude towards change, active/creative behaviour, realistic optimism

Figure 1: Conceptual-discursive sections 1.

	Concept of change			Attitude to change			Vision as a condition	Entity/ agency				Action	
	Disruption, risk	Process	Opportunity	Reactive	Active	Proactive		Individual	Social	Cultural	Instrumental	Motivated	Strategic
Social futuring		X	X	X	X	X	X	X	X	X	X	X	X
Resilience	X			X	X			X				X	

Table 1: The comparison of category elements 1[17]

4. FUTURE

"What if perception is less about the registration of what is present, than about generating a reliable hallucination of what to expect? What if memory is not a file drawer of photographs, but a changing collection of possibilities? (...)What if happiness is not the report of a current state, but the prediction of how things are going to go? What if morality is not evaluation of the present action, but the prediction of character and its thrust into the future?" (Seligman et al. 2016: x). These questions were asked in the introduction to a book published in 2016. Seligman *et alii's Homo Prospectus*[18] is an important sign of the construction of a new psychological, evolutionary, and social narrative. This narrative seeks to identify the relationship between humans and the future. The way this scientific work, which integrates cognitive, clinical, evolutionary, and philosophical aspects, was born and accepted shows that there is something in the 'academic air'. In the intellectual ambitions and scientific approaches of the last decade, humans living in and oriented to the future have increasingly appeared, no longer as fiction but in the scope and contexts of empirical phenomena.[19] Indeed, some studies described a cultural behaviour that forgets about the past and is open to accept novelties from much earlier. It is no exaggeration to say that we are witnessing a change in an interpretive and discursive framework[20]: a shift that is extending the dimensions of individual and social life also for science and places its perspectives in the future.[21]

---

[18] A 'homo prospectus' is necessarily 'socialis', too. As Seligman et al. (2016: 7) put it, a distinctive feature of the homo sapiens is the ability to combine its unique far-sighted behaviour with the also unique ability to live and learn together with others.

[19] Michel et al. (2011) used the method of culturomics, i.e. computational lexicology, to analyse a digitised corpus containing 4 percent of books printed in English between 1800 and 2000. Culturomics aims to explore cultural phenomena and changes (vocabulary, use of terminology, cultural memory, etc.) as reflected in language and its use as a quantitative analysis of cultural trends. Regarding the attitude to the past, they found that the texts were less and less about the past as historical time progressed. The past went out of fashion as the data lines reflected an increasing rate of oblivion. At the same time, the texts were more and more focused on the present and the analysis of the periods 1840–1880 and 1880–1920 showed that the time of accepting novelties halved as the new became a part of culture sooner and sooner.

[20] Frameworks select and highlight some elements of perceived reality to make them dominant in a communicative situation. Frameworks may define problems, identify (name) causes, express moral judgements, and offer certain solutions. They determine the convictions, perceptions, and thinking of communicators (Entman 1993: 52-53).

[21] Of course, this approach is not completely new either. A characteristic of religious and spiritual discourses is a description of the relationship between the present and the future that guides people. The principles underlying the regulations of monastic orders as the first treaties of

4.1. FUTURE ORIENTATION

Studies about the individual's approaches to the future use multiple terms, including *future time orientation*, *future time perspective*, and *possible selves*[22]. *Future orientation* primarily expresses such components of the attitude to the future as time extension (the time horizon in which the individual thinks in advance), the continuity between past, present, and future, and attitudes to the future (for definitions see Monda 2018).

The concept of future is based on the culturally determined attitude to time. In western cultures, this is quantitative and linear. To comprehend time, we create and use language units and concepts (minute, hour, day, week). These convert time to quantitative units, something that is measurable and calculable, and make its passage linear. Linearity arranges time dimensions, comprehending and conceptualising temporality as a continuum. On this view, the future is determined by the past and the present. By contrast, non-western mentalities do not break down time to abstract units and are more related to natural time with a qualitative approach. Its concept of time is cyclical and reflects the life of nature. On this view, the focus is always on the present and, in fact, the future does not necessarily mean the new but the recurring (Passig 2004). According to Ben Baruch (2000, cf. Passig 2004), in today's technological societies, these two conceptions of time are complemented by a third one, socio-cultural time with performance as its category of interpretation. The individual conceptualises the future in terms of some performance that they must complete and achieve. The desire for this results in future orientation, our relationship with the future.

Management Theory, essentially aimed at steering to the future, guided their followers to the future (the eternal future) in harmony with the teachings of the Christian Church and religion. Among the typical problems of the monastery, the Rule of Saint Benedict emphasises the sins of sloth and procrastination, also considered as cardinal sins, and the need for wisdom capable of comparing the present with what is desired for the future, including: 1. wise and considerate (a wise man is one who sees things true to their reality and with a sense of correction) 2. mature and sober, 3. modest, 4. humble (and hence enterprising as the biggest enemy of enterprises is pride), 5. non-irascible, 6. just (not violent, humiliating, abusive of power), 7. flexible (not slothful, procrastinating, cumbersome, hesitant), 8. not lavish, 9. fearful of God, and 10. fatherly (Grün 2004).

[22] Markus and Nurius (1986) introduced the concept of future egos, i.e. the ideal 'I' that an individual wants to become, will become and does not want to become in the future; in short, the positive and negative ideas of the future ego.

This interpretation of time includes the imagination of the future as something that is not brought by the passage of moments but by the achievement of our goals. From this perspective, the past and the future depend on behaviours in the present, and the future penetrates into the presence through acts, decisions, and discourses, and vision is a dynamic idea shaped by the awareness of the present[23].

According to Nurmi (1989), future orientation is a multidimensional process of motivation, planning, and evaluation. In this framework of definition,

- motivation means the individual's interest,
- planning means the way in which future goals are achieved,
- evaluation means the extent to which a goal has been achieved as set by the individual.

In his definition of eight dimensions, Trommsdorff (1983) explains future orientation with 1) the expansion of vision, 2) its details, 3) its conception, 4) motivation, 5) the area (of life) to which the vision relates, 6) emotional attitudes, 7) the control that the individual thinks they possess, and 7) the process of events.

Future orientation, then, *refers to* the attitude and faculty of humans (and culture) regarding the future, *expresses* the mindset and way of action where the conception of the future appears, and *is used to mean* such culturally and individually determined complex behaviours which determine culture and the individual, and in which we can suppose future orientation.

The authors stress that the ability to imagine the future, progressing towards the future and the arrangement of future possibilities; the intuitive, affective, and informational behaviour that looks at the future are distinctive features of humans.

However, as has been mentioned, thinking about the future, future orientation, depends on factors beyond the individual's mind, including culture, social norms, and socialisation. Its development

---

[23] Cf. the presencing model of organisational management, based on the work of Senge et al. (2005) and Otto Scharmer (2009).

receives major contributions from safe attachment, positive self-image, education and teaching, the communication taking place in all of these, and the discourses that shape reality and express and frame experiences. Also, it is intimately linked to motivation, the skill of goal setting, and satisfaction (Seginer 2009, Dweck–Walton–Cohen 2014). In addition, scholars have sought to identify other specific factors. Chen (2013) looked at how spoken language and its expressions of time affect speakers' future-oriented economic behaviour. His starting point was the fact that languages which refer to time dimensions with separate grammatical forms place the future farther for their users and detach it from the present. In languages where there is no such marked grammatical separation, speakers can perceive and express a much closer and more active link between the present and the future. His findings proved that this is in fact the case as speakers of languages with obligatory tense marking adopt a future-oriented behaviour (e.g. in terms of saving, smoking, and health preservation) less often. However, it would be wrong to suppose a direct causal relation between linguistic structures and future orientation. It is more likely that language also reflects its users' ideas, mindset, ways of life, and future orientation. At the same time, it is vital to notice the importance of linguistic expression in thinking about the future, too. Petutschnig (2015) explored a different link, one between the tax system and attitudes to the future. His initial proposal was that taxation may affect the individual's life and thinking about the future. In his study, he searched Google data from 58 countries, converted them into the Future Orientation Index, and used it for a comparison with the tax systems. He concluded that profit tax, value added tax, and a high-rate personal income tax on low incomes discourages future-oriented behaviour whereas the top tax brackets may encourage it.

4.2. FUTURE ORIENTATION INDEX

The Future Orientation Index (Preis et al. 2012) explores future orientation in human trends of information search, by looking at Google searches with years – in Arabic numbers. The FOI expresses the extent to which Internet users worldwide (by country) in a given year are more interested in the available information from upcoming

than previous years. Specifically, a 2010 FOI is based on the comparison between searches regarding the years 2011 and 2009. The FOI values can be compared with the given country's GDP, among other things. So far the measurements have revealed a clear correlation between the two: the bigger GDP per capita is, the greater the willingness to look into the future. What may explain this, in addition to the natural connection between welfare and trust in the future, is that future orientation may also make the economy more successful. Another explanation is that the type of searches and Internet infrastructure may be determined by a country's economic situation. What is special about the FOI is that it is methodologically unfit for cultures that are culturally bound in terms of language and numeration and that are beyond the digital divide.

4.3. DISCUSSION: FUTURE ORIENTATION AND SOCIAL FUTURING

The meaning and professional/scientific discourse of the two concepts share the approach to the future as an essential category. However, this is more like an attitude, a way of action or planning in the case of future orientation, whereas social futuring is more about a strategic action. Likewise, it is a common feature that a condition of future orientation is vision, the imagination of the future, its existence or lack, and the conception of change as a process. Future orientation looks at the individual as a culturally embedded entity whereas social futuring looks at the individual only as a social entity/agent, which is partly a similarity (supposing a broader context) and partly a difference (the existence of the individual level). A possible difference between the two concepts and their use is that future orientation usually comprehends the future as a perspective in time whereas social futuring comprehends it as a way of coping with changes. Also, with respect to the future, social futuring uses its normative frameworks to define good life, identified by future orientation research as a condition of attitude. The conceptual–discursive sections are shown in Figure 2. The category elements are presented in Table 2.
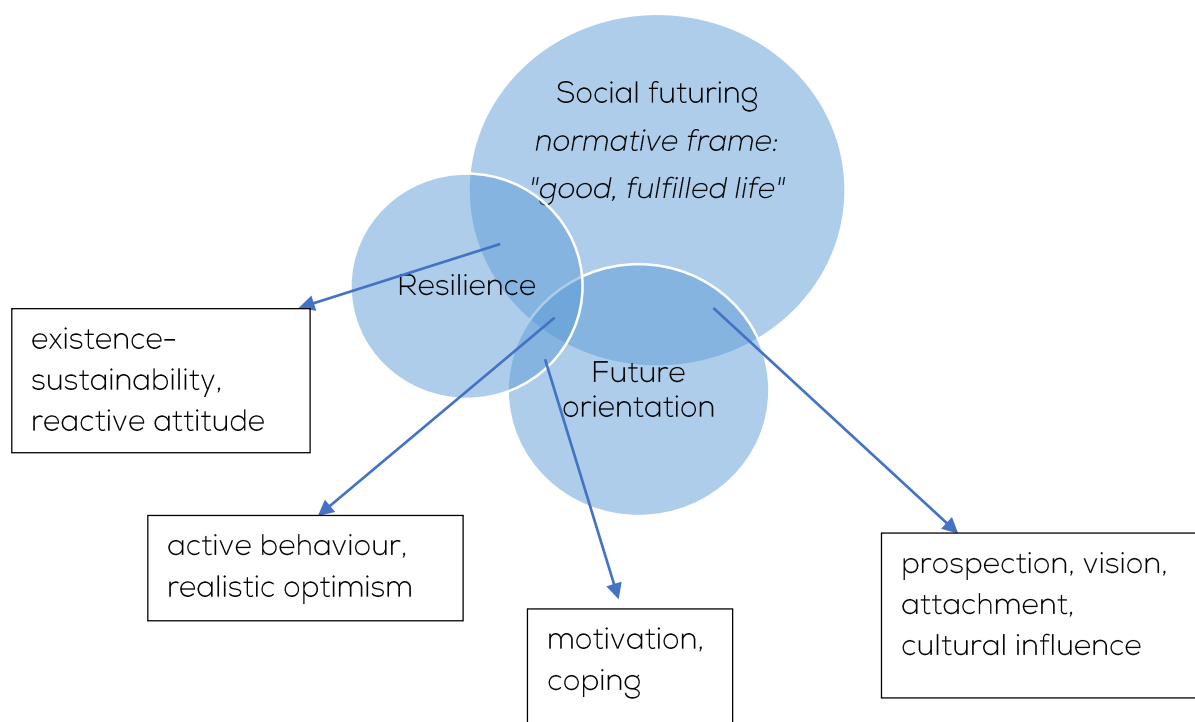
Figure 2: Conceptual-discursive sections 2

Social futuring
normative frame:
"good, fulfilled life"

Resilience

Future orientation

existence-sustainability, reactive attitude

active behaviour, realistic optimism

motivation, coping

prospection, vision, attachment, cultural influence

	Conception of change			Attitude to change			Vision as a condition	Entity/agency				Action	
	Disruption, risk	Process	Opportunity	Reactive	Active	Pro-active		Individual	Social	Cultural	Instrumental	Motivated	Strategic
Social futuring		X	X	X	X	X	X	X	X	X	X	X	X
Resilience	X			X	X			X				X	
Future orientation		X			X	X	X	X		X		X	X

Table 2: The comparison of category elements 2

23

4.4. FUTURE PROOFING: INVESTING IN THE FUTURE

In 1504, Piero Soderini, a member of Signoria, the government of Florence, commissioned two of the greatest artists to paint a fresco on each of the opposite wooden walls in the Council's chamber (Salone dei Cinquecento) of the Palazzo Vecchio. One was Leonardo da Vinci and the other was Michelangelo Buonarroti, hired to depict the Battle of Anghiari and the Battle of Cascina respectively. Michelangelo finished his sketches but never started to paint his fresco as he soon left again for Rome to work by commission of the Pope.

By contrast, Leonardo considered his fresco as his life's masterpiece and while he learnt from the defects of his technique used for painting *The Last Supper* that became visible within a few years, he decided to experiment again. Specifically, he opted for encaustic (wax) painting as used in the Greco–Latin classical period because it preserved colours better, while da Vinci wanted to make the dynamic scenes magnificently vivid and colourful. He worked a lot with cartoon while experimenting by mixing wax into his pigments as a replacement of tempera in minor paintings. But in the Old Palace, oil and wax were not drying fast enough, his oil even flowed off and the wall's surface was too big. This prompted da Vinci to speed up the drying process. He made a big fire in the tall chamber of more than 7 meters hoping that the heat of 30 degrees would dry the picture and bind the colours. But what was 30 degrees on the floor was much hotter several meters above. *The Battle of Anghiari* simply melted off the wall and Leonardo da Vinci left his project unfinished. Admittedly, as Giorgio Vasari wrote in reference to critics, "It is clear that Leonardo, through his comprehension of art, began many things and never finished one of them" (Vasari [1550] 1912-1914: 92) Was this a deficiency of encaustic painting or was Leonardo too bold? Was this technique first used centuries before really suitable for an order in the 16th century? The wax technique has been used ever since and its tools are sold to present–day artists in hobby stores. Is its endurance due to its flexible use?

Of course, future proofing is not a Renaissance term and not even primarily related to painting techniques. Also, it does not mainly refer

to endurance but to a kind of preservation that is capable of flexibly managing new circumstances, to the reduction of future obsolescence, and to the preservation of investments in the long run. In the case of *The Battle of Anghiari* the encaustic technique did not become future proof within this conceptual framework. While it has survived until today, it is considered as a hardly renewable established technique.

The term *future proofing* first emerged in the electronic industry at the end of the last century, within the context of data storage and computer electronic planning. In this area, the primary consideration for future proofing is to create technology's spread, endurance, and safety with flexible systems (Barreneche 1995, Rich 2014).

In the early 2000s, architecture adopted the term and *used it as a reference to* a new approach to the planning and preservation of built environments, as a synonym of *sustainable planning*. In the professional discourse of architecture, future proofing *is used to mean* the strategic procedure of looking into the future and developing methods to minimise the negative effects of the future and to benefit from the positive effects of sudden and unexpected changes (Rich 2014: 32). While future proofing primarily *expresses* protection, resistance to the negative effects of the future, and typically a kind of successful preservation in time, the term includes the notion of adaptation to change.

Rich describes 12 principles of future proofing as a procedure for historic buildings. The following list contains those that are most relevant for social futuring.

- Preventing decay: There is a need to use materials that resist rather than generate decay and to prevent the mixed use of enduring and less enduring materials.
- Promoting understanding: There is a need to make people understand the role that built environments play in cultural heritage and to sign them with fine interventions that distinguish the original from the new.
- Encouraging flexibility and applicability: These two characteristics are equally important in built environments and

the related attitudes as they serve to help built environments survive in consumer culture in the long run.

- Extending time of use: Regular maintenance works can help to keep built environments as a part of sustainable society, economy, and culture.
- Reinforcement: There is a need to protect buildings from the effects of climate change, extreme weather, natural risks, and energy scarcity.
- Increasing endurance and reliability: Rebuilding must use materials that are as enduring or reliable as, or even more enduring and reliable than, those used for the original project.
- Reducing obsolescence: Planned obsolescence is unacceptable. There is a need for proactive steps to prevent physical, functional, and aesthetic obsolescence.
- The benefits of preservation: It is worth considering the long-term benefits of a decision on intervention rather than demolition.
- Local and healthy: There is a need to use materials that are locally available, renewable, non-toxic, and can also be used in the future.
- Diversification: An ecologically resilient system is one that prevents any of its aspects from being dominated and preserves its diversity. It can have multiple abilities and uses, and it can become an organic part of the human ecosystem.
- Planning in advance: There is a need to aim at an optimum use of materials and timing in construction to prevent further interventions.

In the terminology of technology management, *future proofing* is *used to mean* far-sighted planning for minimising the risks of technological investments. The point of future proofing is that investors should prevent the creation of new technologies that are unfit for improvement and promote the creation flexible open-ended systems that adapt to changing needs. The economic consideration underlying future proofing is based on the fact that the replacement of obsolete technologies may lead to painfully expensive and unprofitable technological redundancies whereas a sudden adaptation to rapid changes may also lead to expensive technological redundancies. Future proofing is, then, the logic of

informed strategic formulation and development based on well-grounded foresight.

In the case of organisations, future proofing *refers to* a given future-oriented way of achieving common thinking. Its aim for the given organisation is to appropriately interpret business and economic changes and future scenarios, and to develop the most efficient responses to them.

Scenarios are not forecasts or statements that may be derived from trends rooted in the past. They are more like various and often highly different "future stories" that prepare the organisation for sudden trend disruptions and unexpected changes. Scenarios can help create a kind of non-determined future-oriented common imagination, narrative, and discourse, by which organisations can change their mental models and thinking schemes. Organisations use scenarios to express their fears and goals (desires) for the future but also their attitudes to their respective competences and their value propositions.

Foresight is, in essence, the identification of long-term trends in a specialty area so that stakeholders can start strategic research in their respective areas. Foresight does not determine what will be/happen in the future but outlines possibilities and charts routes for them.

The key element of future proofing in technological development is road mapping, i.e. a process which shows the most probable way, goals, and temporal aspects of technological development. It can also work as a common reference and discursive framework for various industries (cf. discourses about the complex changes of the 4th industrial revolution), giving a context of interpretation to the operative and strategic steps of organisations (Birchall–Tovstiga 2002).

Future proofing may also refer to states, embedded in discourses about the duties of the state and governments, their management styles, ways of decision-making, and responsibility, in such topics as demography, environment (protection), economy, technology, and

cultural conflicts. On this view, future proofing may mean an awareness/approach that helps to build resilience. This may enable the state as a social agent to cope with any future change. At the same time, the term may mean a type of management based on this attitude by which risks (opportunities) can be managed efficiently and advantageously (Boston et al. 2014).

The broader professional scientific use of the term *future proofing* gives prominence to the semantic component 'preservation'. This preservation perceives the need for, or process of, renewal and considers that the existence of a particular subsystem, principle, or phenomenon will remain important in the future. On this view, the term invariably implies the influence and involvement of new (digital, network, connected[24]) technologies. Specifically, future proofing in education identifies the transformative effect of new technologies and the methods of preparing for the future (Rowan – Bigum 2012). In the news industry, it looks at the new platforms of preserving and spreading news. The latter type seeks to find out whatever these platforms can preserve for the future, i.e. how much we will be able to learn about present-day events (the "first draft" of history, as termed by the authors) from the preserved news (Hansen–Paul 2017).

4.5. DISCUSSION: FUTURE PROOFING AND SOCIAL FUTURING

Future proofing not only differs from social futuring in its name. The difference between these concepts lie in two aspects that are much more essential. One is the technological and business context of future proofing and the much broader socio–cultural context of social futuring. While the former may be defined as a way of thinking or organisational procedure that attempts to prevent obsolescence (investment) damage as a result of inflexibilities and obsolescence,

---

[24] "But what if we are already connecting all the continents together today? What will our planet look like once we have built seamless transportation, energy, and communications infrastructures among all the world's people and resources–when there is no geography that is not connected? A better term for it might be "Connectography" (Khanna 2016: 12). "If humankind is indeed a single data–processing system, what is its output? Dataists would say that its output will be the creation of a new and even more efficient data–processing system, called the Internet-of-All-Things. Once this mission is accomplished, Homo sapiens will vanish" (Harari 2017).

the latter may be defined as a pattern of capacities and abilities that serve the good life and prosperity of societies (Csák 2018) and its conditions (Szántó 2018). At the same time, both concepts are of a strategic nature. The other difference is value proposition. In future proofing, this is the result of a competitor analysis in addition to the examination of the organisation's vision, mission, and competences. Thus, this means creating and not setting values. By contrast, social futuring defines individual and social life on a normative basis so it derives its value proposition from stating these and outlining the possibilities of preserving them and not from a comparison or competition with other values.

The further conceptual discursive sections and comparisons of all four concepts are set out in Figure 3 and Table 3.
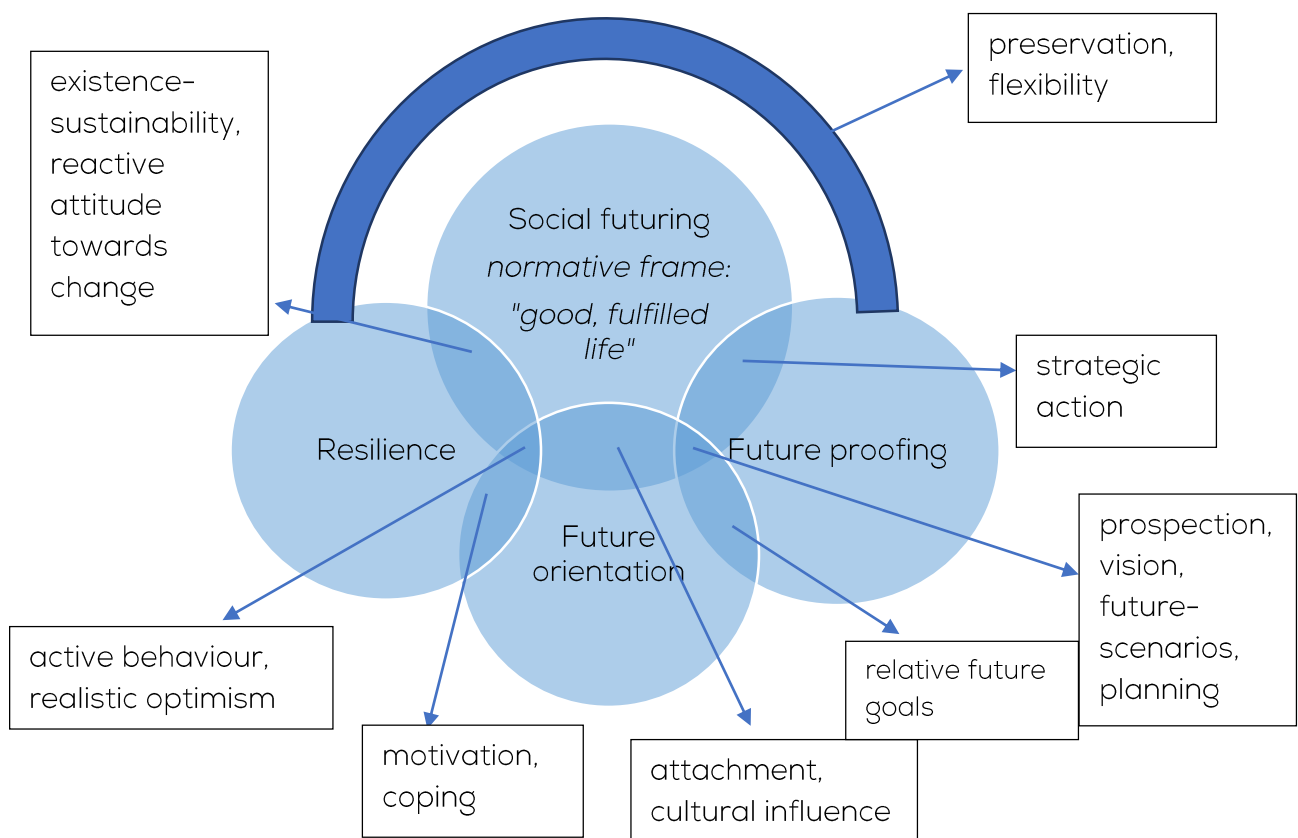

Figure 3: Conceptual-discursive sections 3

	Conception of change			Attitude to change			Vision as a condition	Entity/agency				Action	
	Disruption, risk	Process	Opportunity	Reactive	Active	Pro-active		Individual	Social	Cultural	Instrumental	Motivated	Strategic
Social futuring		X	X	X	X	X	X	X	X	X	X	X	X
Resilience	X			X	X			X				X	
Future orientation		X			X	X	X	X		X		X	X
Future proofing	X		X		X	X	X				X		X

Table 3: The comparison of category elements 3

5. EPILOGUE

The term *social futuring* expresses a new concept, establishes a new meaning, and may launch new discourses. Its coinage requires a justification for its necessity, an analysis that may assign its place and job. As a new concept, social futuring may also be a competing or complementary term, an overarching or specifying framework for the existing elements of scientific and professional discourses. Accordingly, this paper has presented three concepts that are relevant for social futuring in order to use them for refining and distinguishing the elements of the definition and measurement of social futuring. It has aimed at introducing the unique meaning, novel perspectives, characteristic traits, and discursive capacity of social futuring both as a *reference* to reality (social entity, future change), and as a *term* (an ability and capacity in the conceptual sense of the word, which identifies, evaluates, and prepares for the types of future changes in various dimensions), and an *interpretive framework* (the prosperity and good life of individuals and societies).

BIBLIOGRAPHY

Ábrahám, Zoltán (2018): Conservatio Personae Gratae. Working Paper 3/2018. Corvinus University of Budapest, Social Futuring Center, Budapest

Abramson, Lyn Y.–Seligman, Martin E. P.–Teasdale, John D. (1978): Learned Helplessness in Humans: Critique and Reformulation. Journal of Abnormal Psychology 1978, Vol. 87, No. 1. pp. 49–74.

Applegath, C.–Arney, E.–Fitzpatrick, D.–Gomez-Palacio, A.–Howard, P.–Vomberg, A.–Watkinson, Brian–Yazer, J. (2010): Resilient Design Principles and Building Design Principles. ResilientCity.org. http://www.resilientcity.org/

Aristotle: Categories and De interpretatione. Transl. by Ackrill, J. L. Clarendon Aristotle Series. Oxford University Press, Oxford, 1963.

Armstrong, S. L.–Gleitman, L. R.–Gleitman, H. (1983): What some concepts might not be. Cognition, 13 (3) pp. 263 – 308.

Barreneche, Raul A. (1995): Wiring buildings for the future. Architecture 84. pp. 123–129.

Ben-Baruch, A. (2000): Sociocultural Time, Mada 2000, Vol.. 25. pp. 16–21.

Birchall, David–Tovstiga, George (2002): Future Proofing – Strategy 3.10. Express.Exec. Oxford, Capstone.

Black, Max (1998): A nyelv labirintusa. Ford: Ábrahám Zoltán. Holnap Kiadó, Budapest

Blommaert, Jan (2005): Discourse. Cambridge University Press, Cambridge

Boston, J.–Wanna, J.–Lispki, Vic–Pritchard, J. (eds.) (2014): Future-Proofing the State: Managing Risks, Responding to Crises and Building Resilience. Australian National University Press, Canberra

Chen, Keith M. (2013): Effect of Language on Economic Behavior: Evidence from Savings Rates, Health Behaviors, and Retirement Assets. American Economic Review 2013, 103(2). pp. 690–731.

Csák, János (2018): Social Futuring – A Normative Framework. Working Paper 2/2018. Corvinus University of Budapest, Social Futuring Center, Budapest

Dweck, Carol S. (2016): Mindset: The New Psychology of Success. New York, NY: Ballantine

Dweck, C.S.–Walton, G.M.–Cohen, G. L. (2014): Academic tenacity: Mindsets and skills that promote long-term learning. White paper prepared for the Gates Foundation. Seattle, WA. https://ed.stanford.edu/sites/default/files/manual/dweck-walton-cohen-2014.pdf

Entman, Robert M. (1993): Framing: Toward a Clarification of a Fractured Paradigm. Journal of Communication. Autumn 1993; 43; 4. pp. 5 –58.

Foucault, M. (1972): The Archaeology of Knowledge. Tavistock, London

Foucault, M. (1982): The order of discourse. In: Saphiro, M. (ed.): Language and Politics. Blackwell, London. pp. 108–138.

Grün, Anselm OSB (2004): Életre vezetni. A vezetés elvei Szent Benedek regulájában. Bencés Kiadó és Terjesztő Kft., Pannonhalma

Halliday, M. A. K. (1978): Language as Social Semiotic: The Social Interpretation of Language and Meaning. University Park Press, Baltimore

Hansen, Kathleen A.–Paul, Nora (2017): Future-Proofing the News: Preserving the First Draft of History. Rowman & Littlefield, Lanham, ML

Harari, Yuval Noah (2015): Homo Deus: A Brief History of Tomorrow. Penguin, Random House, London

Hiroto, Donald S. (1974): Locus of control and learned helplessness. Journal of Experimental Psychology, 1974/102. pp. 187–193.

Khanna, Parrag (2016): Connectography. Mapping The Future of Global Civilisation. Random House, New York, NY

Klein, David C.–Seligman, Martin E. (1976): Reversal of performance deficits in learned helplessness and depression. Journal of Abnormal Psychology 1976 (85). pp. 11–26.

Kocsis, Tamás (2018): Finite Earth, Infinite Ambition - Social Futuring and Sustainability. Working Paper 6/2018. Corvinus University of Budapest, Social Futuring Center, Budapest

Kövecses, Zoltán–Benczes, Réka (2010): Kognitív nyelvészet. Akadémiai Kiadó, Budapest

Markus, Hazel R.–Nurius, Paula (1986): Possible selves. American Psychologist, 41(9). pp. 954–969.

Mead, George H. (1934): Mind, Self, and Society: From the Standpoint of a Social Behaviorist. ed. by Charles W. Morris. University of Chicago Press. Chicago, Ill

Michel, J.-B. et al (2011): Quantitative Analysis of Culture Using Millions of Digitized Books. Science vol. 331. issue 6014. pp. 176–182.

Monda, Eszter (2018): Social Futuring – In the Context of Futures Studies. Working Paper 5/2018. Corvinus University of Budapest, Social Futuring Center, Budapest

Nurmi, Jari-Erik (1989): Development of orientation to the future during early adolescence: A four-year longitudinal study and two cross-sectional comparisons. International Journal of Psychology, 24(2). pp. 195–214.

Passig, Dan (2004): Future-Time-Span as a Cognitive Skill in Future Studies. Futures Research Quarterly 2004/Winter. pp. 27–47.

Petutschnig, Matthias (2015): Future Orientation and Taxes: Evidence from Big Data. Geutebrück, G. (ed.): WU International Taxation Research Paper Series 2015-08.

Preis, T.– Moat, H. S.–Stanley, H. E.–Bishop, Steven R. (2012): Quantifying the Advantage of Looking Forward. Nature/Scientific Reports 2.

Prince-Embury, Sandra (2008): The Resiliency Scales for Children and Adolescents, Psychological Symptoms, and Clinical Status in Adolescents. Canadian Journal of School Psychology, 23(1). pp. 41–56.

Prince-Embury, Sandra–Saklofske, Donald H. (eds.) (2012): Resilience in Children, Adolescents, and Adults: Translating Research into Practice. Springer, New York

Reivich, Karen–Shatte, Andrew (2003): The resilience factor: Seven keys to finding your inner strength and overcoming life's hurdles. Broadway Books, New York, NY

Rich, Brian D. (2014): The Principles of Future-Proofing: A Broader Understanding of Resiliency in the Historic Built Environment Preservation. Education and Research vol. 7./2014. pp. 31–49.

Rotter Julian B. (1966): Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80. pp. 1–28.

Rowan, Leonie–Bigum, Chris (eds.) (2012): Transformative Approaches to New Technologies and Student Diversity in Futures Oriented Classrooms. Future Proofing Education. Springer, Dordrecht

Scharmer, Otto C. (2016): Theory U: Leading from the future as it emerges. Berrett-Koehler Publisher, Oakland, CA

Schneider, Sandra L. (2001): In search of realistic optimism: Meaning, knowledge, and warm fuzziness. American Psychologist, 56(3). pp. 250–263.

Seginer, Rachel (2009): Future Orientation: Developmental and Ecological Perspectives. Springer, New York, NY

Seligman, M. E.–Railton, P.–Baumeister, Roy F.–Sripada, C. (2016): Homo Prospectus. Oxford University Press. New York, NY

Seligman, Martin E. (2006): Learned Optimism: How to Change Your Mind and Your Life. Vintage, New York, NY

Seligman, Martin E. (1995): The Optimistic Child: a Revolutionary Program That Safeguards Children Against Depression and Builds Lifelong Resilience. Houghton-Mifflin, Boston, MA

Senge, P.–Scharmer, O. C.–Jaworski, J.–Flowers, B. S. (2005): Presence. Exploring Profound Change in People, Organisations and Society. Nicholas Brealey Publishing, London

Southwick, Steven M.–Charney, Dennis S. (2012): Resilience: The Science of Mastering Life's Greatest Challenges. Cambridge University Press, New York, NY

Synder, Charles R.–Dinoff, Beth L. (1999): Coping: Where have you been? In: Synder, C. R. (ed.): Coping: The Psychology of What Works. Oxford University Press, New York, NY. pp. 3 –19.

Szántó, Zoltán Oszkár (2018): Social Futuring - An Analytical Conceptual Framework. Working Paper 1/2018. Corvinus University of Budapest, Social Futuring Center, Budapest

Teubert, Wolfgang (2010): Meaning, Discourse and Society. Cambridge University Press, Cambridge

Trommsdorff, G. (1983): Future orientation and socialisation. International Journal of Psychology, 18. pp. 381–406.

Vaillant, George E. (2002): Aging well: Surprising guideposts to a happier life from the landmark Harvard study of adult development. Little, Brown & Co., New York, NY

Vasari, Giorgio [1550] (1912-1914): Lives of the Most Eminent Painters, Sculptors, and Architects, translated by Gaston DeC. De Vere. Philip Lee Warner, London

Vie, L. L.–Scheier, L. M.–Lester, P. B.–Seligman, M. E. P. (2016): Initial validation of the U.S. Army Global Assessment Tool. Military Psychology, Vol 28(6) pp. 468–487.

Wittgenstein, Ludwig [1953] (1986): *Philosophical Investigations*. Basil Blackwell, Oxford

20
50

Social Futuring Center (SFC) is a multidisciplinarian research unit of the Corvinus University of Budapest (CUB). Our aims are to develop the conceptual and normative framework of social futuring, to construct the **Social Futuring Index (SFI)** and to manage the **ConNext 2050** research project. The main scope of its research is the analysis and interpretation of social futuring of different social entities, focusing on short and long-term future changes (2017–2050).

The SFC periodically publishes **working papers** that highlight the findings of its research. They are published to stimulate discussion and contribute to the advancement of our knowledge of multidisciplinary matters related to philosophy, sociology, psychology, bionics, informatics, economics, political science, environmental studies, futures studies, network science. SFC working papers are available online on the **www.socialfuturing.com** website.