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Isabelle Dangeard

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The Fulfilling Intensity of Nature-Based Activities

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Construction of a Model based on a Hybrid Lifestyle.

Isabelle DANGEARD, Université de Bretagne Occidentale
isabelle.dangeard@univ-brest.fr

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Abstract

This paper relates the emergence of a concept of the intensity of human activities as a way to explain the interest of nature-based activities. This concept emerged through attempts to solve a paradox I faced after my lifestyle evolved over a few decades, from a modern lifestyle made up of work and leisure, to a hybrid one including a significant proportion of direct living from nature: although I felt my life had improved, the comments I faced indicated it was considered non-rational. Attempts to solve this paradox resulted in a grounded model highlighting the reasons why I felt the change was, on the contrary, totally rational. The core of the explanation relies on a concept of the intensity of human activities, defined as the diversity of needs satisfaction resulting from their time use. Nature-based activities are usually intense activities, as they satisfy multiple needs, such as nature needs, physical activity, and free creativity. Some of these needs were previously satisfied by specific activities, usually performed successively, and mediated by work. This was time-consuming and addressed few needs simultaneously. On the contrary, the intensity of a hybrid nature-based lifestyle was more fulfilling and time-efficient.

The first part is a narrative of the evolution of my lifestyle and highlights the event which triggered the change and the following evolutions. I conclude this part with the paradox I faced and solve it in the second part with a model of needs satisfaction based on time use and the ensuing concept of intensity of human activities.

Part 1. Lifestyle change: the paradox

A few decades ago, I lived a classical modern lifestyle. I was working as a teacher and researcher in management sciences and enjoyed my job. Extra hours led me to work more than full time, but I liked the associated challenges and social interactions. My job did not require any physical effort, so I used to play tennis to make up for this, although the time I spent with my children meant I did this much less than earlier in my life. As playing tennis was often an indoor activity and in any case, like my job, took place in artificial settings, I also felt the need for a more natural environment. Therefore, I spent time hiking, and sometimes beach fishing or blackberry picking. However, these walks and sports did not involve creativity, and my job only required a little. So, I still felt the need to make my own mark on something. The activity that offered me this chance was basketry, an activity I had learned as a teenager and had occasionally practiced since then using store-bought materials. When my family settled in a remote area, blackberry picking could be done on our land, sports gave way to maintenance of the outdoors and production of firewood, fueling relaxing evenings around the fireplace.

During one discussion with friends around the wood-burning stove, we agreed on the interest of an autonomous heating system in case of power cuts. However, you still need matches or a lighter to start the fire, unless you are able to do this using more primitive techniques. I had to confess that all my attempts at this had failed, even after I had read a book dedicated to making fire like our ancestors and carefully watched the video that came with the book. Then my English friend told me she knew where I could learn how to make fire by friction on a “bushcraft” course. I asked her to explain this word, which has no French translation, and noted down the name of the course organizer. As the course was in the UK, I looked for a similar one in France, but without success. Thus, I registered for one of the next sessions of the one-week course in the UK. I arrived there at the end of April, with all the equipment needed for this week in the woods. The very first evening, I realized that I had misunderstood one point: I thought the evening meals would be taken indoors, while it was an entirely outdoor week. If I had understood this point, I would probably not have registered for such a course. I started thinking “What am I doing here? How long will I be able to cope with such an environment?” Indeed, the weather was cold, with frost in the morning showing there had been negative temperatures during the night. However, as the days went by, I learned a great deal, even though I failed to light a fire by friction. On the drive back home, I stopped in the city where I was to take the ferryboat to cross the channel back to France. Here there was a fair, with many merry-go-rounds and other amusements, loud music, smells of candy and sun cream, and people dressed in the latest fashions, with make-up and sunburns. Still wearing my comfortable outdoor clothes, I once more found myself thinking “What am I doing here?” After one week in the woods, the outdoors had become a familiar life environment, and all these man-made artifacts seemed strange to me.

Once back home, I started using my new skills. At first, I practiced making fire by friction with materials I had picked up on my way back. Finally, I succeeded. Then I started to regularly carve, forage, and weave strings and I made a shelter where I could sleep. For all these activities, I used the bushcraft knife I had brought back, and sometimes a small folding saw. What I had also brought back from the course were thoughts about the art of bushcraft, which is how to live outdoors with a minimal kit, typically only a knife: the versatile bushcraft knife.

Over the following years, my activities evolved. These changes fall into three dimensions.

Firstly, my panel of activities expanded. I pushed my bushcraft skills further with new carving and weaving projects. When I realized that the mud that I was walking on everyday

was clay, I learned pottery techniques from a ceramic artist who gave courses and accepted to help me make useful pots rather than the artistic pieces he favored. Then I learned wool spinning on courses provided by an association, and rapidly became able to transform fleece into products such as hats or cushions, with a self-made drop spindle. I then explored the art of soap making, which is just basic chemistry. Finally, I started to combine these techniques to produce goods with which I replaced store-bought ones. As for my everyday life, I was now spending more time outdoors doing activities like cooking, having a shower, or sleeping.

Secondly, the destination of my productions evolved. From outdoor products, to be used when living in nature, I started making home products, still processing in the outdoors materials I picked in my natural environment. For example, a broom, which is clearly something you don't need when you live in nature. All my personal ornaments (necklaces, bracelets, and earrings) gave way to self-made and nature-sourced ones, and some pieces of furniture met the same fate. I thought of this evolution as a bushcraft lifestyle: still living most of the time indoors, but among many productions sourced from the surrounding nature, and therefore spending a lot of time in nature.

Thirdly, my evolution as regards the technical dimension was twofold: very often I used other hand tools than my bushcraft knife, such as pruning shears, hand saws with large blades, a few containers and sieves, which made the processes easier. But sometimes I didn't use any industrial artifact, for example making pots, cordages, or a sun hat in a primitive way. And I realized it gave a specific value to the products made this way, maximizing the connection with the environment, as no unknown processes were obscuring the results.

At this point I faced external perspectives on a lifestyle I called hybrid: for I still worked in a built environment, although only part time by this point; and I still had a car, a phone and an Internet connection, and my life relied on many industrial products sourced from global distribution systems; but part of my needs were directly satisfied from my natural environment through basic techniques and simple tools. I had opened a guest room, offering my guests a discovery of the techniques I had recently mastered, and teaching them some basic skills whenever they wanted. During these interactions, I got an outsider's perspective that I hadn't requested, as some of these visitors asked if what I was doing was a passion. The answer I gave, saying that this was a lifestyle, rather than an after-work hobby, was probably not totally convincing as I was surprised by these comments. If passion is to be opposed to reason, for me it was clearly a rational choice, which made me spend less time working to spend money to satisfy my needs, and more time directly satisfying my needs from my close natural environment. But the most crude questioning came from one of my nephews, who one day asked: "Why do you bother making a broom? With the money you gain from work, you could buy many brooms from the time you spend making one!". For a teacher in management sciences, this was a major objection about labor productivity and time-efficiency. With all these comments, I had discovered that for other people, it seemed I was acting out of passion, or in an anti-economic manner, and overall, in a non-rational way. On the contrary, I felt my choices were totally rational. This was a paradox I had to explain.

Part 2. Solving the paradox with a concept of intensity of human activities

Human decisions involve both an emotional system and a deliberative one (Kahneman, 2012), reflecting the old philosophical opposition between the heart, with its emotions and passions, and the head, with its reason, which interfere during decision making (Luo and

Yu, 2015). Here I define **rational** choices as decisions that can be explained with a cognitive model. It does not mean that this cognitive process was conscious when the decision was made, as a decision can be driven by emotions, and still be rational.

The criticisms I faced were about the absence of rationality of my choices – the impossibility to find cognitive explanations. Therefore, an explanatory model could solve the paradox.

Building the model

At first, I just wanted to explain the paradox for myself, not as a researcher. The explanation I had found was the following: my new activities had reduced the time I previously spent playing sports, walking in a natural environment, and indulging in creative hobbies. Thus, I saved time directly, as I no longer spent time on these activities, but I also saved time indirectly, which was the time I previously spent working to pay for the goods and services that supported these activities (costs of travel to a hiking site, sports equipment and entry to amenities, materials for creative hobbies, etc.). Indeed, my new activities were satisfying needs such as immersion in nature, physical activity, and free creativity, in addition to the needs for the products I made. This generated moments that I felt more intensely. Furthermore, this approach also rapidly led to material satiety: it curbed my appetite for material goods, producing the feeling that I had enough. For something was stemming from the products I had made, rendering industrial products tasteless and the ones I had made sufficient. I used to say that once you've spent three hours of hard work piercing a carefully chosen stone with another one to make a necklace ornament, you don't feel any need to make another one. Similarly, my home-made soap and self-made washing liquid (from wood ashes) swept away all my previous needs for store-bought cleaning products. The cherry on the cake – not my primary motivation – was the feeling that I was respecting the natural environment I was living from: little or no waste, energy use, pollution or loss of biodiversity. Overall, more with fulfilling activities, less time needed: this was totally rational.

Once these first thoughts were clear, I considered what I already knew from the literature. I re-examined Maslow's hierarchy of needs that I had learned a long time ago, but it could not easily reflect my need to be in a natural environment nor my need for physical activity. I knew the latter activity was a determinant of health, for example, promoted by the World Health Organization in a global action plan on physical activity for healthier people (WHO, 2018). And there were justifications for the former ones in a French book I had been given about why nature benefits us, which is a literature review for non-academic readers (Gueguen and Meineri, 2012). During the sustainability courses I gave, I presented alternative indicators to Gross National Product, such as Bhutan's Gross National Happiness (GNH), where I had found interesting elements. Indeed, one of the nine domains of the GNH index is "Cultural diversity and resilience", and this domain includes an indicator of "Artisan skills" also named "Indigenous knowledge literacy" or "arts" in the survey. It is measured in thirteen skills including weaving and carving. The contribution of these skills to happiness, as defined in this study, could reflect my need for free creativity. Besides this, the book "Our Common Future", also known as the Brundtland Report (WCED, 1987), offered a definition of sustainable development based on needs satisfaction, which I regularly used when giving my courses. To my students, I often posed the question "What do we need?", and the discussions we had on this topic suggested a useful distinction between needs and the ways needs are satisfied. For example, this can be illustrated by the historical evolution of work, from physical work to office work, which has left us with an unsatisfied need for physical activity, fulfilled in the modern world by a

variety of sports. However, although all this background supported some of the ideas I had, it didn't make a global model that would solve my paradox.

A model of needs satisfaction from time-use patterns

The concept of lifestyle has been characterized by both practices and meaning in field studies (Evans and Abrahamse, 2008; Lorenzen, 2012). It relies on theoretical work defining a lifestyle as “a more or less integrated set of practices which an individual embraces, not only because such practices fulfill utilitarian needs, but because they give material form to a particular narrative of self-identity” (Giddens, 1991). Nevertheless, a theoretical review of the concept (Veal, 1993) concludes on a strict definition of lifestyle as “the distinctive pattern of personal and social behaviour characteristic of an individual or a group”, because this definition gives “a clear, operationalizable and theoretically useful identity”.

I define a **lifestyle** as a pattern of activities describing the use of time for an individual or a group. I define **activity** as a time-use schedule, indicating what is done and when. A unique time interval characterizes simple activities, for example a walk outdoors. More complex time schedules can be necessary for more complex activities, for example, when delays such as drying times in pottery or basketry are necessary steps of a process. Some activities have material inputs, such as tools, equipment, and raw materials used during the activity, and some have material outputs. An activity also results in outcomes as regards groups of needs, as it generates more or less satisfaction in terms of different needs.

Lifestyles include broad categories of activities such as work and leisure. The understanding of work has evolved throughout history: “In the pre-modern domestic family-based economy, the household was a living and working community. In the industrial system, only paid employment outside the home was considered work, while unpaid household work was devalued” (Komlosy, 2022).

Here I define **work** as paid employment, using the narrow sense of the concept. I call a lifestyle “**modern**” when it includes a significant share of work activities.

Leisure studies were initially based on the work-leisure relationship and, although this relationship later weakened and it is now argued that that the only secure future for this field of study is to re-focus on work (Roberts, 2018). For anthropologists, who mainly study non-western countries, leisure is a “universal human phenomenon”. Many activities can be identified as leisure by external observers, although the word as a category has no straightforward translation in many cultures (Chick, 1998). All this makes the “leisure” category typical of modern societies.

I, therefore, define **leisure** as an activity undertaken within a modern market culture, which means it has some cost for the person who engages in it.

Modern societies are market societies, but they still present the characteristics of traditional non-market societies. Work and leisure apply to activities undertaken within a market societal culture. On the contrary, I refer to as “**life**” any activity undertaken as part of a non-market societal culture.

Consequently, the same activity can be life, work, or leisure, depending on the context. For example, land art can be work for an artist, leisure for someone paying to attend land art classes, and life for someone simply practicing land art in the neighborhood.

The concept of nature-based solutions (NBS) is highly relevant to my present lifestyle. Two definitions of NBS are widely used. The European Commission defined NBS as “actions inspired by, supported by, or copied from nature” (European Commission, 2015, Annex 1).

The International Union for Conservation of Nature (IUCN) defined NBS as “actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits” (Cohen-Shacham et al., 2016). This second definition characterizes actions directed towards ecosystems and adds properties of those actions to the definition. This, however, makes it difficult to use, as the properties would have to be checked for the concept to be properly used. The first definition includes actions inspired by or copied from nature, which is just a small deviation from the literal meaning of “nature-based” and for me meant simply supported by nature. It could be argued that everything comes from nature, after a greater or lesser amount of transformation and transport. The typology of Eggermont et al. (2015) is, therefore, helpful in distinguishing three main types of nature-based solutions, depending on the level of engineering of biodiversity and ecosystems, and on the number of ecosystem services and stakeholder groups targeted. The first type, “better use of natural/protected ecosystems”, is the closest to the common idea about nature-based solutions that nature is not transformed a great deal, as the other types of NBS include more intensively or even intrusively managed ecosystems as well as artificial ones.

“**Nature-based**” is an attribute of activities, here defined by the key role played by nature, especially the nearby natural environment, as the sourcing place and/or the setting of the activity. This natural environment can be wild nature or a slightly transformed natural ecosystem, like most gardens.

I define “**nature-based living**” as a lifestyle made of nature-based life activities. Hybridization of modern lifestyles (defined above) with nature-based living creates **hybrid** nature-based lifestyles.

As regards human needs, Max-Neef’s Human Scale Development (Max-Neef, 1991) offered a clearly relevant framework, plainly dissociating fundamental needs from the different ways they can be satisfied. Hence, “Satisfiers” can contribute to the satisfaction of one or more fundamental needs. They are “Synergic Satisfiers” if they “satisfy a given need, simultaneously stimulating and contributing to the fulfillment of other needs”. Fundamental needs are classified in a two-dimensional matrix. The first dimension, named “existential categories”, includes being, having, doing, and interacting. The second dimension, named “the axiological categories”, includes subsistence, protection, affection, understanding, participation, idleness, and creation. Max-Neef states that “Satisfiers are not the available economic goods”. Economic goods are “in a strict sense the means by which individuals will empower the satisfiers to meet their needs”. For example, books and laboratory instruments are artifacts, and “the function of these goods is to empower the Doing of Understanding”. This framework includes many detailed elements relevant to the actualization of needs. Despite this, time use is not straightforward in the framework, as the “doing” dimension includes items that are not, strictly speaking, time use (for example, “be different from”) and some of the “doing” items (for example, to choose, cooperate, and build) can be aspects of the same activity. I, therefore, needed to adapt the framework to reflect my thoughts, which I did following Max-Neef’s statement that the framework was an “open proposal”.

My model is based on a primary classification of human needs into two categories: material needs and immaterial needs.

I further divide material needs into three secondary categories, according to the short, medium, or long lifetime of the goods, respectively consumption goods (including consumables such as food or cleaning products), equipment (including tools), and the home. This does not mean we need ownership of durable goods, but only the ability to use some of these goods.

As regards immaterial needs, none of the previously mentioned texts provide an encompassing framework including the items I felt relevant to explain the paradox I described in part 1, namely a natural setting, physical activity, and self-expression. Other groups of needs, whose satisfaction did not change very much, are not explicit elements of my specific model. However, some of them could be relevant elements of other specific models.

A **general model** of needs satisfaction from time-use patterns relates activities, representing the use of time to groups of needs classified into material and immaterial categories. It can be implemented in **specific models**, depending on the goals of the modeling processes.

In such models, work, as paid employment, indirectly satisfies some needs, through the goods and services that it enables us to pay for, and directly satisfies other needs depending on the job.

It should be noted that the material outputs of some activities can be the inputs of other activities, but this differs from the outputs as regards the satisfaction of material needs. For example, when an activity produces a tool, it satisfies some need for equipment, but the tool (not the satisfied need for tools) is an input of other production activities. These material loops exist around work, leisure, and nature-based life, but material flows are not represented in the following graphical representation, which is a representation of needs satisfaction from time use.

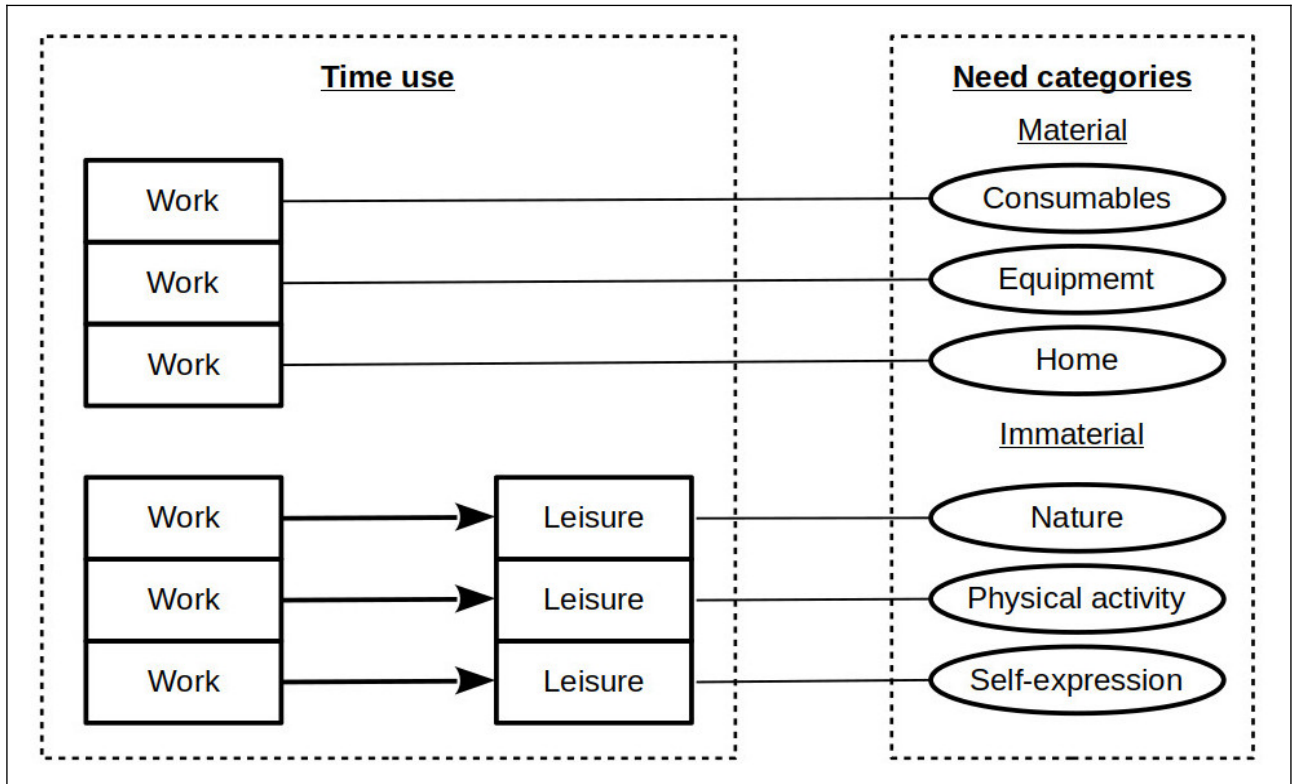
The **intensity** of an activity is the diversity of the needs it satisfies, given its time use. Intense activities are time-use schedules generating a significant amount of needs satisfaction from different groups of needs. Simply speaking, an activity satisfies an array of needs from a given time use. The diversity of these needs and the limited amount of time used are the basis of its intensity. These different needs are not necessarily satisfied simultaneously, but the needs associated with one same activity add-up to make its diversity.

Graphical representation

Figure 1 is a simplified representation of my initial lifestyle. The time use is made up of work and leisure activities. Needs for consumables, equipment (like cars, digital devices, seats, or tools), and the home are funded by the money gained from work (thin lines). Immaterial needs for nature, physical activity, and self-expression are satisfied by leisure activities (thin lines), themselves funded by some money gained from work (bold arrows).

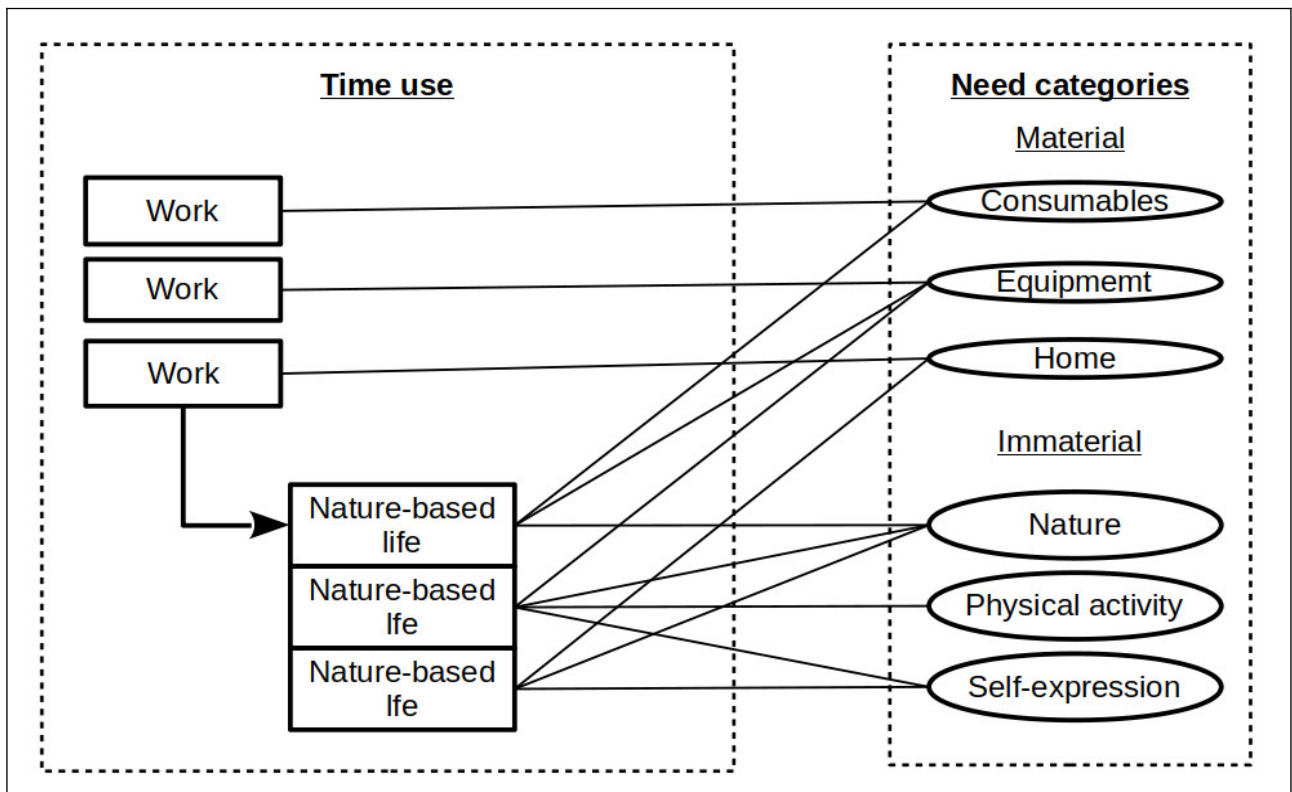
Figure 2 is a simplified representation of my hybrid nature-based lifestyle. Part of the working time and all the leisure time of the previous modern lifestyle are replaced by self-produced, self-sourced, low-tech activities requiring very little work (salaried) time to pay for a few basic pieces of equipment (one bold arrow), and no money in the case of primitive techniques. Each of these activities satisfies many needs (multiple thin lines). The satisfaction of material needs by nature-based activities tends to generate satiety, so these needs are represented by smaller ellipses. All these activities constitute a hybrid nature-based lifestyle.

Figure 1. Initial modern lifestyle



Activities and the groups of needs they satisfy are linked with thin lines.
 Bold arrows represent funding relations.

Figure 2. Hybrid nature-based lifestyle



Activities and the groups of needs they satisfy are linked with thin lines.
 The multiple lines indicate a great intensity of nature-based activities.
 The bold arrow represent a limited funding relations.

Comparison

The intensity of the resulting hybrid lifestyle is increased, because part of the work activity and all leisure activities, which otherwise address needs separately – thus tending to reduce the intensity, have been replaced by nature-based activities (NBA). These are more intense because they simultaneously satisfy a wide diversity of needs, always addressing nature needs, but often also satisfying needs for physical activity and free creativity, in addition to the material needs they directly aim to meet in most cases. They are also more intense because they more easily fulfill the satisfaction of needs, for the satiety resulting from self-production leaves little space for additional material needs.

The resulting hybrid lifestyle has a greater intensity, being made up of more intense activities, and requires less time for the same level of satisfaction of needs. It is a rational choice, and this solves the paradox.

This can be illustrated by the example of the broom mentioned above. Making this broom involved outdoor physical activity and some creativity. It is now hung in the room where I live, as a decorative item. Therefore, I no longer spend time moving it to and from the broom closet. I calculated that the time I saved rapidly overcame its production time. The double function of cleaning and decoration finally made it time-efficient, in addition to other benefits like the pleasant smell of pine-needles it gives off during use, and the interest it attracts from my visitors who want to try it out, both of which appeared after it was made. The efficiency also stems from the reduced need for specific decoration elements. Overall, a limited time investment satisfied an array of different needs.

Discussion

The general model and its implementation

I propose a general model of satisfaction of human needs from time spent doing activities. It emphasizes the interest of engaging in activities offering synergistic satisfaction of different types of needs. The concept of intensity, qualitatively defined as the diversity of needs satisfied by the time spent on an activity, is an attribute of all human activities, and therefore of lifestyles, which are described as patterns of activities. I adapted this general model into a specific one in order to explain a paradox described in the narrative (part 1). This adapted model only includes the relevant elements that are common to most of my nature-based activities, for this is more appropriate to the clarity of the core elements of my explanations, namely a natural environment, physical activity, and free creativity. Figures 1 and 2 are, therefore, simplified representations, voluntarily omitting the satisfaction of other needs such as those described in the broom example. My central concept of intensity is linked to Max-Neef's concept of synergies between satisfiers. Many satisfiers among those revealed by Max-Neef (social environment, communities, etc.), are not represented, as I experienced no major evolution in this domain. Some satisfiers evidenced by Max-Neef, like autonomy, consistency, getting to know oneself, and self-esteem, are not included in the specific model of the present paper, because they made only a little difference, clearly not a major one. They could obviously be key elements of other specific models.

For example, it's clear that the familiarity I came to feel in an outdoor environment, thanks to my bushcraft course, satisfies some need for security. Bushcraft education makes a

place “no longer wild but home” (Fenton, 2020). The absence of perceived threats could be an important element of transition towards nature-based lifestyles.

Connectedness also matters, and hand-made things create relationships with people and materials (Pike, 2018). I only mentioned the satiety I felt as the result of these connections, but other specific models could explicitly include a need for connectedness.

As an emerging model from a personal life experience, the present model is a rooted one reflecting feelings and thoughts. It is proposed as a basis of discussion, criticism, and evolution about theory building in the field of human needs and their satisfaction, and the importance of nature in this domain. This applies to the concept of intensity of activities and to the grouping of needs into broad categories. Further theory building could be done through critical thinking, confrontation with other patterns of time use and needs fulfillment, or more extensive studies.

The status of nature-based activities

I have presented my nature-based activities as life activities because they are moments of life directly from nature, as opposed to life through markets. Indeed, the cost to me is almost nothing, being limited to a few tools and equipment, and I need no traveling time to be in a natural environment. For other people, however, nature-based activities require transport. Outdoor clothing is another cost and a type of purchase that has its own fashion addicts. Likewise, some people avidly collect tools like knives. These increasing costs could make nature-based activities look more like leisure than life. On the contrary, if urban green spaces were managed as productive resources dedicated to local residents, nature-based life activities could be free options even for city dwellers. Overall, the status of nature-based activities varies from leisure to life, and work of course because some jobs are nature-based. For traditional communities, these activities are necessary life activities. The level of choice to engage in these activities can range from necessary to optional and from free to expensive, depending on the context.

The time-efficiency of activities

Time is a key determinant of the intensity of activities. The dilution of time use with the separation of work and leisure activities tends to reduce the intensity of each, while nature-based life activities tend to be intense because they concentrate the satisfaction of diverse needs: some nature needs, a minimum amount of physical activity, some creativity, in addition to the life need that they aim to fulfill. This time efficiency, as regards the joint outcomes of activities from one main time input, are typical key elements of my initial academic background in management sciences. If the present model is shown to be relevant, this would confirm the interest of bringing together scientists from different fields, and would help to remove the traditional frontiers between disciplines enabling the building of new areas of knowledge.

A rationale for trends in movements

In a study of the ancestral skills movement, also named “primitive skills, wilderness survival skills, Stone Age living, or bushcraft”, Pike (2018) describes the history of the movement and of related trends: self-sufficiency movements such as the Shakers, Arts and Crafts, and Woodcraft Folk in the 18th, 19th, and 20th centuries were followed by a “quintessentially American” back-to-the-land movement started in the late 1960s and 1970s. The ancestral skills movement, which grew up in the last decades of the 20th century, was also influenced contemporary trends such as such as experimental

archeology and the wilderness skills movement. At this time, there were overlaps with media-promoted trends like survival shows and paleo diets programs. The more recent makers movements started in the early 2000s.

in France, Rouvière (2015) studied the Ardèche department, a symbol of the back-to-the-land movement, including four waves since the 60s, each of them with different motivations. Although this work was published after I attended my bushcraft course, I had heard about “neo-rurau”, people moving from cities to rural areas, and the main reason for this was the quality of life. This was precisely the reason my family settled in a remote rural area. The context I had grown-up in was, therefore, a general idea about the quality of rural lives. My research topics had made me conscious of the negative environmental and social impacts of the modern world, and I admired the French thinker Pierre Rabhi, who promoted a “happy sobriety” (Rabhi, 2010).

Nevertheless, the context I lived in had not offered me any idea about the skills I could use to develop some form of living from the land, apart from growing vegetables, but I did not want to replace the organic food baskets I bought from local producers. Moreover, apart from making fire by friction, I did not recognize the skills mentioned in the program of the bushcraft course I attended.

Regarding these movements, my model offers a rational explanation about why nature-based activities are more fulfilling. It also questions their degree of integration into modern lifestyles, resulting in hybrid lifestyles. There may be an optimum level of hybridization, ranging from 0% to 100% depending on the culture and individual characteristics, which could become the subject of further study.

Nature-based activities also usually have limited negative environmental and social impacts, which arise for two reasons: they involve low-impact transformation processes, and they generate satiety. This reduction of impacts could be canceled out, if they are practiced as leisure, by the impacts of transport and of store-bought equipment. However, if they are practiced as life activities, they reduce impacts. Such activities also contribute to degrowth by satisfying some needs directly, rather than with products and services paid for with money gained from work. In the process, they enhance well-being, by offering an art of living from nature to integrate into our lives. This confirms the possibility and interest of degrowth, as a source of alternatives: an “art of living with art” (Latouche, 2022).

Social change

If there are better lifestyles with reduced impacts, we need to ask whether social influence techniques could favor the adoption of such lifestyles. First, let us examine the change process described in part 1.

The evolution of my lifestyle changes described in part 1 was triggered by a primary decision (to learn how to make fire), followed by a consequent secondary decision (to attend a week-long course in the woods), and later multiple tertiary decisions resulting in a hybrid nature-based lifestyle, which offered a major lifestyle enhancement. The primary decision can be explained within the theory of planned behavior (Ajzen, 1991), for a conscious intention resulted from a desire for autonomy, and this lasting desire could have played a role in the tertiary decisions. Ajzen's model also emphasizes the perceived behavioral control, which increased in my case due to the material opportunities I had and the trust I progressively gained about my ability to master skills. This could have contributed to the rapid sequence of tertiary decisions. Nevertheless, the secondary decision, based on a misunderstanding about the setting of the course, does not easily fit into the framework, and nor does the fact that the immaterial outcomes of the tertiary decisions were not consciously expected, apart from an enduring desire for autonomy,

which I did not feel like a major motivation. I would rather say that the tertiary decisions were a series of exploratory steps. The evolution following the secondary decision fits better into commitment theories (Kiesler, 1971, and Joule & Beauvois, 1998): the commitment resulting from the secondary decision (to attend a week-long bushcraft course) paved the way for the development of similar activities during the following years, until I finally received skeptical comments. Only then did I start thinking about what appeared to me as criticism. Even then, the result was a reinforcement of my behavior, through the explanations that I found. This reinforcement following attack is a classical sequence within commitment theories. Overall, both rational decisions and commitment-driven steps were relevant elements of my lifestyle change.

As a consequence, different strategies could be used to develop the adoption of nature-based lifestyles. As my model sets a rational justification for some hybridization of lifestyles, social change could be targeted by social influence strategies promoting a process of hybridization, which could lead to a panel of different outcomes, depending on contexts, and on cultures. This variability probably makes it easier to simply trigger changes using commitment techniques by creating opportunities to freely discover nature-based activities. These would engage people in a nature-based course of action, which would then develop in an autonomous way. This could be done by creating easy-access, low-cost opportunities, for example, as part of sustainability agendas of local governments and businesses.

Conclusion

I used the evolution of my personal lifestyle towards more nature-based activities to propose a rooted framework reflecting the changes I felt had taken place. The combined satisfaction of different types of needs, resulting in a greater intensity of activities and a consequent reduction in the time needed for a similar satisfaction of needs. I made a categorization of needs into three material and three immaterial categories, which I then used to illustrate the concept of the intensity of activities, defined as the diversity of needs satisfied by a given time use. This constitutes a step towards the introduction of time into theories of needs satisfaction, and highlights the importance of the dissociation or, conversely, the synergistic combination of needs satisfaction in our lives. It also emphasizes the saturation of needs satisfied by nature-based activities. As an attempt at theory building, it offers a generic model and a specific implementation that leaves out many types of satisfiers, especially those reflecting social interactions and citizenship, that can be key elements of other modeling processes. The present model can explain the rising interest in nature-based activities, especially if these are part of life from nature rather than leisure.

My ultimate conclusion will be the next chapter of my narrative. The Covid-19 crisis caused inter-related health safety and job-security risks, above all because vaccination could have become mandatory and to refuse it would have led to redundancy. My safety and security needs were, therefore, decoupled from the other needs satisfied by my work. I opted for early retirement, which will unite these needs with the array of those satisfied by an increased investment in a nature-based life.

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