Introducing the Capability Approach in Innovation Projects

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Abstract: This paper aims to clarify of the added value of applying the CA in innovation projects. The authors developed a practical method to apply the CA in this context and applied it in a series of workshops and interviews in their organization. The authors found several benefits of doing this, and articulate recommendations for further applying the CA within their organization.

Introduction

The Capability Approach (CA) is theoretical framework that entails two core normative claims: first, the claim that *'the freedom to achieve well-being is of primary moral importance'*, and second, that *'freedom to achieve well-being is to be understood in terms of people's capabilities, that is, their real opportunities to do and be what they have reason to value'* (Robeyns, 2011). The CA is used most prominently in development studies and policymaking, welfare economics, social policy, and social and political philosophy, e.g., to evaluate and discuss national policies that aim to promote human development (e.g., the United Nations Development Reports). It is mostly understood as a flexible and multi-purpose framework, which means that people can use the CA for diverse purposes.

In this paper, we will study the added value of applying the CA within innovation projects.

Oosterlaken pioneered and proposed to apply the CA in the context of innovation projects (2013). In line with her proposal we suggest that, in the context of innovation projects, the CA can help to steer such projects towards their ultimate goal: to promote people's wellbeing. However, work needs to be done in order to adapt the CA to the context and scale of such projects. The work in 'ICT for Development' provides examples of such applications (Kleine, 2013).

Below, we first discuss the context of organizing innovation projects within TNO, the Netherlands Organisation for Applied Scientific Research, the authors' employer. Then we discuss the findings of a series of workshops and interviews that we organized with experts of TNO. In these workshops and interviews, we practically applied the CA to discuss the goals of an innovation program or project. Finally, we articulate several recommendations for practically applying the CA in innovation projects.

Innovation Projects

TNO describes itself as 'an independent research organization whose expertise and research make an important contribution to the competitiveness of companies and organizations, to the economy and to the quality of society as a whole'. TNO organizes its work in projects, which are funded by three types of clients: government, subsidies and industry, in roughly one third each. TNO experts work on projects that aim to bring about positive transitions in diverse domains: industry, health, safety, the environment and energy. Here, we focus on projects and programs in the domain of *'Healthy Living'*. These projects and programs aim to facilitate the transition 'from a focus on diseases and care to a focus on health and healthy behaviour, that enables people to function and participate in society' (Raad voor de Volksgezondheid en Zorg, 2010; Wevers & Gijsbers, 2013).

There are two main topics in the domain of 'Healthy Living': 1) health, prevention and care ('healthy for life'); and 2) employment and participation ('healthy and innovative work'). These topics used to be separate concerns of separate Ministries (public health, cure, social care). Recently and due to

transitions in the national policies, these topics have begun to come closer to each other. In line with this, TNO now aims to better align these topics and to create synergy.

The experts of TNO who work on these projects have different backgrounds, fields of expertise and approaches—ranging from psychology to medicine, from sociology to engineering, and from kinesiology to economy. This diversity offers the potential for synergy. It also poses challenges to align these backgrounds. More specifically, this diversity poses several risks:

1) it causes conceptual confusion, e.g., when experts use the same words for different concepts, or different words for similar concepts, or when they are occupied with their own jargon or expertise and fail to look beyond those—in short: there is the risk of ineffective communication;
2) it hinders the creation of a coherent vision or common approach within projects and across projects, which may result, e.g., in 're-inventing the wheel' or working separate 'silos', and thus in sub-optimal, partial solutions—in short: there is the risk of ineffective collaboration, resulting in ineffective innovation.

Taken together, ineffective communication and collaboration hinder the creation of effective, multi-disciplinary solutions—which are precisely the type of solutions that are needed to make the health transition, which is faced with complex, multi-faceted, 'wicked' problems (which require a multidisciplinary approach).

Moreover, the work of TNO is organized in projects. This brings an additional risk:

3) a tendency to focus on short-term goals of separate, smaller projects, rather than focusing on longer-term, overall goals—this is the risk of focusing on (immediate) *output,* rather than on (longer-term) *outcomes*, thus the risk of not-realizing sustainable impact.

Outputs are the (immediate) results that a project delivers, whereas outcomes relate to (longer-term) impact: to competences, capabilities and practices that are enabled by this output. A project may, e.g., deliver as output a design for a new health intervention—maybe even with a prototype, trial or pilot study. The outcome, however, would be the improved health of a group of people.

Realizing such an outcome requires a focus on an ultimate goal and a concern for scaling-up the project output. This can be realized, e.g., through effective *program management*—a program is understood as a coherent collection of projects, where the realization of tactical, short-term project goals add-up to the realization of strategic, longer-term program goals (Hermarij, 2011).

Applying the CA

The authors developed a practical method to apply the CA in innovation projects (based on the findings from a workshop at CHI Sparks 2014, organized by one of the authors, in collaboration with Ilse Oosterlaken and Annemarie Mink; http://chi-sparks.nl/2014/session/happiness-wellbeing/).

This method consists of the following elements (see below):

- Step-by-step instructions
- CAPABILITY CARDS

Step-by-step instructions to follow during the workshop

For creating focus and momentum, please allow 5-10 minutes for each step.

1. Discuss the project/program's overall/ultimate goal to promote wellbeing. Clarify the positive change that it aims to realize, e.g., to promote specific elements of wellbeing in a specific group.

What does that look like, practically? Describe or sketch the outcome that the project/program aims to realize—e.g., a practical situation, in a couple of sentences.

2. Discuss which capabilities people need to expand in order to realize this type of flourishing. Use the **CAPABILTY CARDS** for this exercise. Discuss both external conditions and personal resources. Make causal relationships clear, e.g., explicate the assumption that Capability A has a positive effect on Capability B. Discussion which capabilities are instrumental and which are ultimate.
3. Discuss which organizations, institutes or companies need to play a role in bringing about these positive changes. Clarify what needs to change within and between these organizations to make these happen, e.g., to improve the skills of frontline workers in a service organization, to improve collaboration between organizations in a 'chain', or to implement measures for scaling-up.
4. Discuss and clarify which specific output the project/program needs to deliver in order to indeed help these organizations to bring about these changes (step 3), so they can help to improve people's external conditions and personal resources (step 2), so they can indeed flourish, in line with the overall/ultimate goal (step 1). One may iterate these steps, if needed.
5. Summarize, e.g.: "This innovation program/project aims to deliver ….. ….. ….. results that will help organizations ….. ….. ….. to deliver ….. ….. ….. , which will enable people to develop …. ….. …. capabilities, so they can flourish in the sense of … ….. ….."

These steps help the workshop participants to start their thinking with an ultimate, practical goal in 'in the real world' (Papanek, 1991), desirable situations in people's daily lives (Step 1), to discuss relevant human capabilities and their putative relationships (Step 2), and then to reason 'outside-in': the role of organizations, institutes or companies in bringing about this positive change (Step 3), and the specific outputs that the project/program would need to deliver in order to have such an impact (Step 4). And then to summarize the findings in an 'inside-out' manner (Step 5).

The CAPABILITY CARDS are based primarily on Nussbaum's list (2011). Please note that we included blank cards, on which participants could write additional capabilities.

We used these instructions and CARDS in five workshops, with three people in each workshop (a mixture of program and project managers, research scientists and business developers), and in three follow-up interviews. In the workshops we discussed relevant (larger, more general) innovations programs. In the interviews, we discussed relevant (smaller, more specific) innovation projects.

Our main goal was to understand the added value of the CA in innovation projects or programs.

An additional goal, more specific for TNO—and also to practically benefit the people of TNO—was to clarify the key topics that people of TNO work on: 1) health, prevention and care; and 2) employment and participation. Practically, we discussed relationships between these topics, which was also a way to cross disciplinary boundaries and organizational politics, and to look holistically at these topics.

Findings

During and after the workshops, the participants mentioned the following added values of applying the CA to discuss the overall goals of their innovation programs:

- Facilitates communication between people with **different world views**, points of departure, expertise domains, roles within the organization, etc.
- Facilitates discussion and articulation of **longer-term, societal goals**, and creating a broader picture and a shared vision (less hindered by organizational-internal politics).
- Facilitates **focusing on people**—individuals and groups—(rather than on, e.g., technology), and the goal to enable them to expand their capabilities and to flourish;
- Facilitates thinking think critically about **means and ends**—for project team members, developing a product may feel like an end, but it is 'only' a means in the daily life of people.
- Facilitates discussions on the **level of an innovation *program***, without being hindered by all kinds of practical, specific details from practical, specific innovation *projects*.
- Facilitates discussions on a **more abstract level**—*not* to replace discussions at a practical level, but as a complement, e.g., during one exploration or preparation session.
- Helps to explore **alternative conceptions** of 'health, prevention and care' and 'employment and participation'—e.g. as *means* towards wellbeing as an ultimate goal.
- Helps to move '**from the outside'** (goals to achieve in society) '**to the inside'** (the outputs that project need deliver, the projects that can do that)
- Facilitates the articulation of **positive goals**, e.g. 'to empower people to develop capabilities for social support', rather than 'to counter isolation'.
- Facilitates the creation of **coherence and synergy between projects**, e.g., in discussions with clients—discussions which otherwise tend to drift towards practical, isolated solutions.
- Facilitates (critical) thinking and discussing about '**why (would) we do this?**'—connecting to the organization's mission and to people's intrinsic motivations.
- Facilitates (critical) thinking and discussing about **the ethics or politics implicit** in innovation projects (which normally remain implicit and unexamined).

In the workshops and interviews, the participants selected relevant CAPABILITY CARDS and arranged them on the table, with arrows in-between (Step 2). Looking at the arrangements thus created, we found recurring patterns. There seem to be two key categories of capabilities:

- **Self-awareness and Self-determination** (and sometimes also Education, critical thinking and reflection) play key roles and are understood by participants as '**individual' capabilities'** that are needed to promote flourishing (see below: 'personal resources')
- **Integration, Participation and Social support, Relationships** (and sometimes also Meaningful work) play key roles and are understood by participants as '**social' capabilities** that are needed to promote flourishing (see below: 'external conditions')

The relationships between these 'individual capabilities' and 'social capabilities' are conceptualized and visualized in various ways:

- As **reciprocal relationships** between three points in a triangle: 1) Bodily health, Mental health and Leisure; 2) 'Individual' capabilities (e.g., Self-awareness, Self-determination); and 3) 'Social' capabilities (e.g., Integration, Social support) (e.g. in workshop 3).
- As **elements in an iterative process**, fuelled by Self-awareness, Self-determination (goal selection and goal planning), leading to activities (e.g., Leisure, Meaningful work, Care for others, Care for the environment, leading to Mental health, Bodily health and Integration (e.g. in interview 3)

Furthermore, several participants (in workshops 2 and 4) also identified **'institutional' capabilities** (participants' term), to ensure the conditions are there for people's flourishing, e.g.: Equal rights and opportunities, Public and political participation, and Safety, security.

The overall findings can be summarised visually; see Figure 1. The participants of the various workshops and interviews indicated that 'individual capabilities' like Self-awareness and Self-determination (and sometimes also Education and Dignity) are in reciprocal and/or iterative relationships with Bodily and Mental Health (and sometimes also Daily functioning and Leisure, play) and with 'social capabilities' (Integration, Participation, Meaningful work (and sometimes also Social support, Care for others, Care for the environment), and need that these capabilities need be supported by 'institutional capabilities' (Equal rights, Public and political participation (and sometimes also Safety, Mobility).

Figure 1. Visual summary of findings from workshops and interviews

Moreover, the workshops helped to clarify two topics that are of special interest to the participants:

Health, prevention and care:

- Bodily and Mental health are seen as means towards further goals, such as happiness or participation (workshops 2 and 5). This is rather surprising because health is otherwise often seen as a goal in itself. In one case (workshop 4) health even disappeared from the picture.
- Health is in a reciprocal relationship with 'individual' capabilities (e.g. Self-determination. Self-awareness, Education) and with 'social' capabilities (e.g. Integration, Social support, and Meaningful work) (workshop 3).

Employment and participation:

- Participation is seen as the ultimate goal, together with Happiness, enabled and supported by other capabilities, e.g. Bodily and Mental health (workshop 2).
- In one case Integration, Participation disappeared from the picture (workshop 5), or it is implied in capabilities like Social support, relationships and Care for others, which function as intermediate means/ends between means (e.g. Health) and goals (e.g. Self-determination).

Discussion

In the workshops and interviews, several participants made explicit references to two existing theories or models: self-determination theory (Deci & Ryan, 2012) and the dynamic model of wellbeing (Abdallah et al., 2011).

Self-determination theory posits that people will flourish if three elements are 'in place': autonomy (people's ability to explore and decide what they want to do); competence (practical skills and resources needed); and relatedness (social interactions and structures people needed). Two participants explicitly referred to this theory. They proposed that people need to be empowered to engage in setting realistic goals, and in working towards realizing these goals, and that this will bring them into a positive feedback loop of gaining confidence and flourishing.

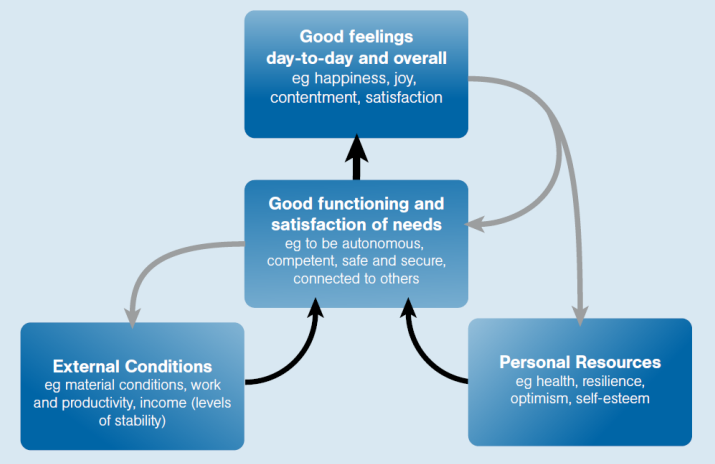

Figure 1. Dynamic model of wellbeing (Abdallah et al., 2011: 13)

Furthermore, the roles of *individual capabilities* and of *social* and *institutional capabilities* (see above, mentioned by participants in workshops) are similar to the roles of *personal resources* and *external conditions*, respectively, in the dynamic model of wellbeing that Abdallah et al. proposed (2011: p. 13). They propose that *personal resources* and *external conditions* positively influence good functioning and good feelings, which, in turn, positively influence these *personal resources* and *external conditions*—see Figure 2. This confirms the key roles of these categories of capabilities.

Application

Based on the positive results so far, the authors propose that it would be useful to further apply the CA in TNO innovation projects and programs. Based on our understanding of the TNO organization, we propose that this can be done by organizing workshops (like the ones discussed above) during the preparation phases of a project or a program, and to involve relevant partners in these workshops. In these phases, thinking about ultimate goals and exploring participants' ideas and aligning them is likely to have the most added value, according to the participants. In this phase, they can discuss and articulate societal goals and desirable outcomes (beyond the immediate project output) and articulate a coherent vision and program.

One possible way of embedding such an approach in the TNO organization is to introduce an extra step in the project preparation process, e.g., by adding items to the existing Risk Analysis or Project

Complexity checklists, such as: *Does the project aim to realize a societal goal? Or is it part of a larger program with societal goals? Are more than two (public and private) partners involved? Are there plans for implementing or scaling-up innovations?*

Another issue to take into account is that experts within TNO will be more likely to adopt the CA if they can combine it with their current theories and methods. Therefore, making explicit references to, e.g., self-determination theory, is likely to help adoption. From an theoretical viewpoint, this would also be interesting because the CA is rarely combine with psychological theories.

Conclusion

We developed and applied a practical method to apply the CA in innovation projects. After using this method in five workshops and three interviews, we found the following benefits of doing that: it facilitates multidisciplinary communication, the discussion of longer-term, societal goals and the articulation of a coherent vision and program, to think outside-in (from societal goals to project outputs), and critical thinking ('why would we do this?'), e.g., about implicit ethical or political issues.

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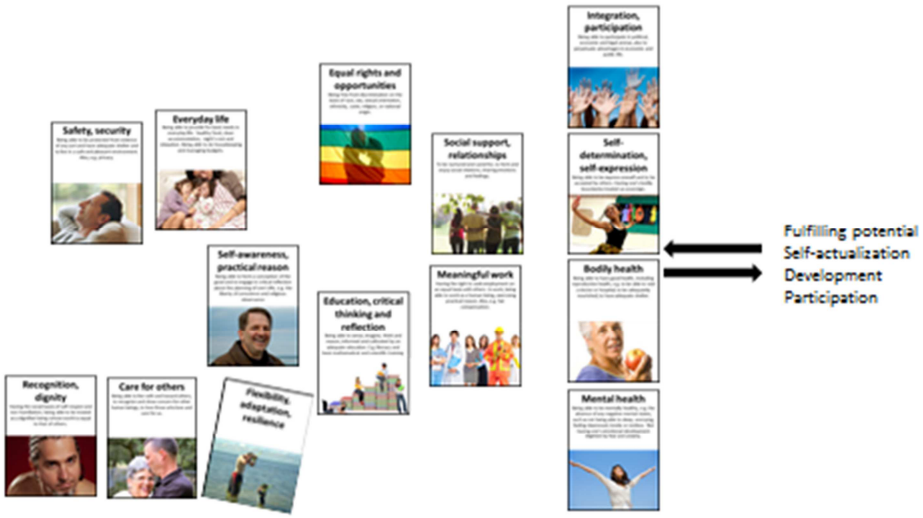
Appendix: Results from workshops and interviews

Workshop 1

Paulien, Sharon, Pepijn

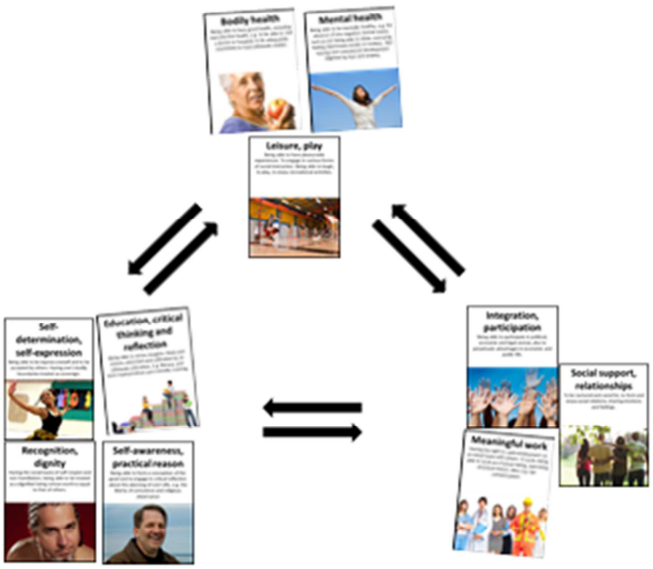


Workshop 2

Willeke, Jan, Niek

Workshop 3

Cyrille, Ronald, Roland



Workshop 4

Govert, Rom, Steven

Workshop 5

Marianne, Alwin, Astrid

Interview 1

Astrid

Interview 2

Roland

Interview 3

Pepijn