VI. Premises and Other Problems

Once an idea has been conceived, the innovator or the team decides on a first draft. This marks the commencement of the practical innovation process, which often befalls hurdles and problems. First of all, particular prerequisites need to be clarified, such as the environment in which a prototype is to be developed, namely a makerspace or incubator. Financing also matters – is it feasible to fund the innovation with personal resources, or is external financing necessary? Who is involved in the innovation process, and at what stage?

In the following, I examine the most common prerequisites concerning problem situations during the innovation process. Again, insights from the various interviewees will serve as a basis for the analysis. As previously observed, interpersonal issues tend to be consistent across different environments, primarily due to their emotional impact.

6.1 Finding a Lingua Franca

With the appearance of several actors gathered around an idea and a resulting prototype, communication difficulties may arise. As delineated in detail in subchapters 3.3. and 3.4. several factors can underlie this problem. Hence, there is the hurdle of communication and mutual understanding, either within a team or within the incubator or vis-à-vis the financier. Such barriers may stem from various factors, including professional or ethnic backgrounds, as indicated by my interviewees. Removing these impediments to collaboration is imperative.

The group's gathering, which is defined through its cooperation during the prototyping development process, matters on several levels. First, they need to identify common goals. As stated, the things society explores and the parameters under which it looks at them are contemporary, and the conclusions of a knowledge process are a temporal testimony. This dynamic extends to the language adopted and agreed upon by the group. Finally, an economy, as a collective entity, negotiates the common frame of reference, determining what is permissible and impermissible

and whether a shared logic, congruent with moral principles, can be established or, if disparate, external logic must be accommodated.

Ultimately, potential users, not necessarily purchasers, are also an important part of the innovation process and must be included in the communication process. For some, potential users provide a data basis for development. A successful communication process enables people to engage with each other despite having different technical or professional backgrounds. The interviewees report how difficult it is to find a common language.

In a *Believer School* workshop titled 'Réflexions par les machines'[1] [Engl. Reflections through machines], I experienced an extreme situation that exemplifies miscommunication. In this workshop, groups were asked to present their common ideas, visions, or prototypes. The groups came together through an upstream process by formulating their interests on slips of paper, which, for instance, named a theme or also the technical implementation. Subsequently, common interests were identified, allowing the formation of groups comprising two or more individuals.

As *Figure 14* shows, the two participants jointly presented an idea with their shared focus being 'protection', leading them to collaborate on developing an app. The team comprised one female tech artist and one male journalist, as per their self-introductions. The idea was that their app would automatically record a conversation or ambient sounds as soon as you mention a pre-set password, subsequently uploading the audio recording to a designated platform.

When the two were asked about the rationale of their idea, a somewhat perplexing scenario ensued. She confidently introduced the idea as a prevention tool against harassment, coercion, or even sexual violence. When she expressed this, he was totally perplexed and confused, his face contorted before breaking into laughter. It dawned on him that he had an entirely different concept in mind, prompting him to exclaim, 'This is not my idea'. The whole group had to laugh. Unaware of his confusion, she flinched. He aimed to contribute to topics related to 'hacktivism', as he described it, envisioning the idea as a mechanism for uploading specific information directly onto another platform, providing journalists with unfiltered material for the community. Evidently, at that moment, he did not align with her presentation. However, what others found amusing ultimately serves as an example of poor communication. It was evident that the two had failed to clarify the purpose of their idea beforehand, resulting in them developing their 'common' idea in entirely different directions.

Later, I inquired the tech artist about the origin of this misunderstanding. I found it difficult to comprehend that they had not previously discussed the purpose of their idea or engaged in initial collaborative brainstorming sessions. She then said

1 This workshop was initially supposed to be in French but took place in a mix of both languages: French and English.

that their common keyword had been 'protection' and that they both agreed on developing an app. From there, they continued to think of 'protection from authority' and 'protection from outside exertion of influence'. After that, they immediately started working on the idea, each having a concrete purpose in mind but not concretising it. They later agreed that 'protection from outside influence' became the common vision, but it was neither referred to nor did they develop a common frame of reference. In her eyes, it was clear that the outside influence was (wo)men ready to use violence; for him, the reference was his own professional milieu and the problems journalists face when they leak information. She later added that they initially kept their brainstorming process as general as possible so as not to limit each other. However, they eventually agreed that they should have been more articulate and clearer about what they wanted to work towards.

Figure 14: Explaining the Idea – Finding a Lingua Franca

While this example of failed communication appears extreme, Johann also describes similar situations concerning his everyday work. The CEO of *Hydro* underscores the significance of being able to express oneself clearly and elucidate product features comprehensively to ensure the recipient understands them. He stresses the importance of avoiding arrogance and instead focusing on aiding the recipient's comprehension. In fact, our conversation served as an educational

session for me as he elucidated his product. Ensuring the company's product functionality is comprehensible is paramount to him. He delineates communication's pivotal role as a prerequisite for achieving success.

> So, it's not about being a know-all, [...] but also about always explaining what you mean and then convincing others. Yes, communication, for example, also plays a major role. Not talking past each other. *(Interview from 11/02/2020, Johann, CEO of Hydro, own translation of the German transcript)*

As discussed in subchapter 3.4. and highlighted by Ludwik Fleck's *Denkkollektive* and Lorraine Daston's *moral economy*, (disciplinary) origins are subject to specific logics of values and norms, which are equally reflected in their understanding and their language. When Johann talks about the fact that, as a source of inspiration or product developer, one must make an effort to express oneself clearly and understandably, this is what he means. Assuming you will be understood regardless is fundamental to mutual understanding. His frequently observed problem, therefore, relates to 'talking past each other'. It is imperative for him to avoid this. The process thus includes the effort to meet on a communication level and to gain a shared understanding of the mutual expectations, norms, and values, as well as to comprehend the emotional world and thus the other's judgement logic.

Felix, the external consultant at the clinic incubator Health Hub, also describes situations similar to Johann's everyday work, which mirrors his experience. He tells me about the difficulty of finding a precise language that others understand.

> Well, it was brought to my attention a few times now that maybe I ask too many questions or form a virtual circle of chairs. Last year, I tried to be clearer and said, "Let's do this by next week!" That went down quite well with some people, surprisingly enough. I didn't enjoy it that much because I don't see myself in that role. And we swing into it, I think. It's a mixture of making suggestions, "Hey, now this and that would be good", versus sharp announcements that I don't make and explaining necessity. A lot of it really builds on each other. You can't build or finish designing or programming an application if you simply haven't talked to potential users yet. That simply doesn't work. *(Interview from 13/07/2020, Felix, Consultant at Health Hub, own translation of the German transcript)*

Unlike Johann, Felix grapples with this process, finding it challenging to align with the language he employs. He acknowledges the potential effectiveness of a 'commanding tone' but confesses that it does not resonate with him. The role of issuing clear instructions does not feel natural to him. He yearns for a more organic unfolding of his understanding rather than a descent into forcefulness. It is a revelation

for him that a distinct task outline seems to be a more effective tool for project advancement.

Interestingly, some of the physicians I spoke with felt the opposite way. They describe Felix's manner as too dominant, which is said to have already led to occasional conflicts. Bahar, in particular, describes how much pressure she felt from the language used and thus turned away from Felix as a consultant for her project. More on this will follow in the subsequent subchapter.

However, it becomes clear that no common language was developed between Felix and Bahar's team that could have yielded fruitful results. The differences led to conflicts that ultimately ended in Felix no longer being brought in as a consultant for the team. Bahar perceived a lack of serious consideration for her role as a female team lead.

Hendrik, Bahar's husband, is the executive officer of the same project and reports on the hurdles regarding the presentation of results and reporting requirements because the project is funded by public money. Significantly, finding a mutual language plays an indirect role in this.

H: […] There is frustration from time to time, and then there are somehow evaluation meetings that you have to have because they are for public money.
I: What do they look like?
H: You sit down with the incubator management. That's three people in principle. […] And then you have to report to them what you have done. You have to prepare the PowerPoint together with the team, yes. You have to show the status; then you go there, then somehow you get the milestone plan back, yes. But you have long since deviated because you have to somehow make progress and you have to report on it, then there are questions and back and forth and because, of course, it's public money, and they have to make sure (for the taxpayer) that the money is used properly. *(Interview from 03/02/2020, Hendrik, Executive Officer for Feety at Health Hub, own translation of the German transcript)*

In this excerpt, although Hendrik does not discuss finding a joint language as such, he describes the process of presenting results to the incubator management and making them understand the status and objectives. As he mentions later, the team tries to communicate so that objectives are mutually clear. Initially, it is still about setting preliminary goals and developing a plan that describes the first processes. In the process of presenting the results, as Hendrik describes it, it is above all about performance and the adequate presentation of the work process so far so that the work is accepted and, at best, allowed to continue in the way suggested by the team.

However, in the interviews with the teams from *Health Hub*, it is repeatedly mentioned (subchapter 6.2.). The meetings and meeting milestones with the management can be problematic precisely because conflicts of interest arise. As Hendrik

mentions, 'there is frustration'. Departures from the original development plan for the prototype have been ongoing. It is all about feasibility, which triggers frustration in him. Additionally, processes are severely restricted because the money they have spent is from public funds, and the incubator is accountable. Thus, the incubator transfers pressure onto the teams. The incubator is ultimately interested in accelerating processes; feasibility is in the foreground, often resulting from using unrelated languages and interests that follow different reasonings. The situation Hendrik draws attention to is ultimately one in which the team is careful to speak each other's language. Hendrik later notices in our conversation that, over time, they develop a joint vocabulary. He seems amused that he now uses words he has not heard before working for the incubator. As Johann correctly notes at the beginning, the team must be able to express itself understandably and clearly to succeed. Thus, in this situation, the team is not only accountable for the developments related to the spending of public money, but for them to emerge from the situation with as little conflict as possible, they need to speak the manager's language.

It is different for Ryan, who enthusiastically talks in the interview about how effectively he works with the company that builds his prototype and mentions how well they understand him without him having to explain too much. He is thrilled that they understand each other right away, can implement what he has in mind with his idea, and can communicate without many words, even though they come from different disciplines.

> Well, what's, I guess, the major advantage with [name of tech development company] working with these people is that I just have to tell them one thing once, my idea, and they can actually automatically turn it into reality. They, I don't have to explain to them in-depth what I want, and they intuitively know what to do. This is compared to, maybe, other groups where you have to keep explaining things. "No, I said I wanted this. I said I needed this specific way." I just need to tell them we're kind of on the same page. They just come at it from a tech angle. I come from a medical angle. […] What's going to be the biggest challenge most likely is that when we have to start doing in-depth patient tests and healthy volunteer tests, working with Shahaf [developer], who's more of a scientist and kind of explained to her, okay, here's the end result of the test we want to have. I think she also comes at it from a different angle. I think she's been in med tech start-ups. And so, she's really just like, okay, we should just go full-on into the software. We should just do this and this and this right away. She's also Israeli. So, she has a very, let's say, different cultural way of dealing with things. Very, just like "we need to do that." So, "we need to do this right now." I'm more from a Scandinavian background. So, I like to think things through a bit. So, that may be a challenge. When saying, okay, we need to do patient tests, we're going to get the data, we'll have to analyse the data. And I think she'll have a different, I think she'll have a different way of analysing the data. We'll have to see how that works out. When I tell, like, the [incubator],

> like, okay, in this project, we need to have, here's the idea for the project we need to, we kind of already saw it through how we want to have the end product needed to be financed. I think the [incubator] also they'll say like, okay, well, could you use this for neurology somehow? Could this be used for strokes? And you think probably not. I mean, there's a lot of stuff there for strokes. *(Interview from 04/12/2021, Ryan, Physician & Innovator at Health Hub)*

At another point in the interview, Ryan speaks of an intuitive understanding that makes working with this company very effective. The common language did not have to be developed in this case, ultimately due to the experience of the company's developers working with physicians and non-developers and, further, Ryan's affinity for the technical part. As described earlier, he feels tremendous enthusiasm for technical feasibilities and prefers to work in research rather than with patients. As he mentioned, technical understanding is instrumental in his work, but also beyond that, he says, in a technologised world. However, there is more to Ryan's interview excerpt regarding his perspective on language and understanding. When he talks about his developer, Shahaf, he sees potential challenges in approaching a problem.

As he describes it, he can imagine Shahaf reacting very quickly to possible problems and trying to eliminate them with a software solution. Ryan himself, on the other hand, talks about thinking challenges through before aiming for a concrete solution. He attributes this not only to his disciplinary background but also to his ethnic background. Shahaf, Ryan says, is Israeli and, therefore, he thinks, is more straightforward than he is. He has more of a Scandinavian background, which makes him, so he explains, more cautious in his approach. In Ryan's case, his initial experiences working with his recent developer are mixed with assumptions.

Even though he compliments his developer, he can imagine their approaches are very different due to various factors. In the further process, however, he informs me later in an informal conversation that they have come closer through their collaboration and continue to learn from each other. They do not always agree, but they begin to develop a common path and, further, a common vocabulary. It will even go so far that they develop neologisms that they refer to in their collaboration and with which they begin to identify their work. At the end of this excerpt, Ryan also mentions engaging in conversations and experiencing misunderstandings with the incubator management overseeing the development of his project. Above all, he sees a problem in that different expectations arise regarding the idea and a potential end product. What bothers him is that the incubator is more interested in getting as much use out of the idea as possible, regardless of whether it is feasible. From Ryan's perspective, his idea has a specific scope of application that he believes cannot be easily expanded. He deems the additional possibilities proposed by the incubator to be unfeasible. As a result, the discussion situation is, at times, deadlocked. The incubator thinks about economic utility potentials to gain as much security and, con-

sequently, financial capital from the later end product. Ryan thinks primarily about implementing the initial idea independently of capitalistic profit potentials.

In all cases, finding a lingua franca is a crucial element in joint technology development. One could break these aspects down into teamwork rules, which would be too simplistic. Successful work, meaning work that is not at risk of failure, should insist on becoming a moral economy that shares a language and makes the group's value understandings transparent. To some extent, as we have seen with Hendrik, one part might adopt the vocabulary of a discipline faster than the other way around. This observation points to hierarchies that can evolve. Especially concerning different ideals or ideas of success, the projects seem to aim for feasibility, especially towards the end of their duration. Focusing on feasibility seems pragmatic and yet does not seem to justify the idea's origin.

6.2 Conflicts and Emotional Decision-Making

As demonstrated in the preceding subchapter, conflicts are not mere hiccups but significant hurdles that often stem from different languages and communication patterns. The presence of a joint language can help avoid these conflicts; however, in its absence, a myriad of emotions surface in these conflictual situations, influencing crucial decisions in the development process. These conflicts and disputes are pivotal crossroads in the process of innovation development, carrying a heavy emotional weight.

The innovation process is a complex interplay of benefits and challenges, all stemming from its inherent diversity. In this section, we witness the diverse actors and their unique perspectives attempting to overcome obstacles and unite as a cohesive whole. While a common language as a tool for effective communication may seem like a straightforward solution, it underscores the intricate nature of this unification process. The data material also reveals that problems are not predictable but rather emerge from the richness of this process. And this multiplicity, it transpires, has a profound impact on the team, the cooperation, and the development of the idea. The material, therefore, offers a glimpse into the daily dynamics of innovation in any setting.

In the following, various excerpts underline the emotionality in conflict-ridden situations. Bahar starts by saying that she spends 90% of her time solving problems as a team lead. For her, a doctor, these are not only unfamiliar and new tasks that otherwise have nothing to do with her work, but she also mentions that she often feels disoriented. Due to the novelty of the tasks and the unrelatedness to her previous experience, she frequently encounters problems that necessitate individual solutions.

Well, we are constantly making experiences, whether in the hospital or here at Health Hub. And then, not only with the product but also always in the team, with the people; probably everything flows into the work somehow. I just know that good experiences are pleasant, but mostly, the bad ones help us innovate. Because then we know what we must change and what we still need to do. In brief, bad experiences are the ones that make us think, and they are easier to sell as a result. […] My job is to keep the team together, solve problems, keep distributors in check, […], I mean, 90% of the time, you have problems like – sometimes my "male problems" sit next to me in meetings, and I don't let them talk, so everybody in the room knows I'm the boss. So, those kinds of problems. […]
But that's – oh, I've got two team members who are both over 1.9 m [tall], and whenever we go into meetings […], the others always think one of them is the shark, and then the little dark-haired [she speaks of herself] starts to swear and that's just always not a model for everyone else to get on well with. Most of our service partners are in their mid-50s and have been working with the same partners for 30 years. And that's just how it is sometimes, unfortunately. These are the problems, and it's always so, how shall I put it? It's always unknown territory like my patient has a pulmonary embolism, and I know what I have to do. It's not like that, but somehow, everything needs an individual solution. *(Interview from 30/01/2020, Bahar, Physician & Innovator at Health Hub, own translation of the German transcript)*

However, Bahar is even more disturbed by the fact that conflict situations often arise due to misunderstood hierarchy. She feels discriminated against due to her gender and not taken seriously, which she often describes as a conflict situation in the interview. In this excerpt, she refers to the fact that she is not taken seriously by male service partners who are approximately 20–25 years older than her. She describes both Viktor, the team's developer, and her husband, Hendrik, as two tall men who, in her experience, are more often perceived as team leaders because of their phenotypical appearance and gender. In this context, and due to the feeling of being pushed aside, she relates that she has exhibited a certain behaviour whereby she becomes dominant in appearance and speaks loudly and brashly. It is the moment when problems in communication with others and the development of the product become apparent. These conflicts are influential in that Bahar often attributes them to gender differences. As a result, she has changed her appearance and behaviour. Further, she decided to refuse to work with Felix, the incubator's commissioned consultant and his team.

B: Another problem was that they always tried to put the young colleagues [from the consultancies] into the teams, so to speak so that they would do it [consult], and sometimes they didn't even understand what it [the project] was all about. And that was, well, that was the combination of these things that made it difficult.
I: Okay, and then Felix came along, and things got better?

B: And then he came along. It didn't get better for me. Because he didn't recognise me as an authority figure in any way. So, I didn't get along with him. It went so far that I called [Leif (chief physician and Bahar's supervisor)] in because I thought he wouldn't listen to me. And then [Leif] came along, and then he put him in his place, and then everything worked. Everything has advantages and disadvantages. […]
I: It's based on sympathy?
B: Very much. On the other hand, I have to say, we also had advisors here; I don't know if you know [Basil]. With [Basil], every five minutes of conversation has been efficient. That has always brought us further. Just like with other consultancies here like Johner [medical advisory institute] or something. That has always been effective. […] But as you say, with other things, it was sympathy-based, and then it was also something different for us initially because we had a dependency on the technical developers in the first round. The consultants hired the ones who built these sensor things. (I: I see) and so we were in a very isolated position here because, for everybody else, they just did a bit of consultancy. For us, they actually did product development, and we were totally dependent on people who didn't like us. *(Interview from 30/01/2020, Bahar, Physician & Innovator at Health Hub, own translation of the German transcript)*

She explains her decision to quit working with the consultancy as being due to the feeling that Felix was too dominant and that he did not listen to what she said or consider her experiences to be valuable. She felt so uncomfortable working with him that she needed to ask her supervisor to join the meetings. In this context, it should be mentioned that the supervisors usually do not work in the incubator or with the team but rather fulfil their obligations in the hospital. They are listed as supervisors on the application form at the beginning but leave the teams to themselves. Leif's appearance changed the dynamic, but this was not a solution, as the atmosphere was not sustainably improved.

Nevertheless, during our conversation, I notice that she also insists on the hierarchies she criticises at the same time. Among other factors, she perceives a disadvantage due to the assignment of young colleagues from the counselling team to her. She thinks she has to explain her project more and that the young consultants have little idea about her project. At this point, she seems annoyed. What further exacerbated her discomfort was the consulting firm's establishment of contacts with the technical developers initially assigned to develop a prototype before Viktor joined the team. The consultant's placement at the development company gave Bahar the impression that they disliked her and her team. This remains unverifiable. However, her impression and feelings of being held back and lacking recognition led her to refuse to work with the consultancy firm. The conflict also does not leave Felix unscathed. Whenever he talks about communication problems, Bahar's team comes up. Later, I learned that Bahar had left her team during the COVID-19 pandemic, and so did her husband. Although he does not meet the incubator's eligibility cri-

teria, Viktor remains alone as an external employee who is de facto the team in the personnel union that drives the prototype further.

The conflicts Bahar describes above are also noticeable within the team. Viktor occasionally indicated in our interviews that conversation situations were often conflictual and that he frequently saw the project work slowed down due to mismanagement.

V: […] When I'm going back home to Romania, you know, before I go, I'm trying to give everybody work, like to have things [results] afterwards, and I was always trying to do this. And things didn't always work. There was a huge delay from the measurement company—there were always delays that were not my responsibility or that I could do anything about.
I: Do you find this frustrating besides being fascinating?
V: Frustrating, sure. Like the fact that I didn't get it done before I left Germany for vacation. It was frustrating, yes, of course. And, looking back right now, it was obvious that we should have bought, like, a piece of equipment that cost like 4,000€, and we didn't because the team lead didn't see the necessity. And this can like… [it] delayed everything because we were dependent on this company for measuring the load cells. Like – looking back, there were some big mistakes that delayed the whole thing for months. Because when I arrived here, I said we need that equipment. But no one listened.
I: Is this one of the reasons you have sometimes this tense atmosphere?
V: By tense, do you mean the fights we have? *(Interview from 04/02/2021, Viktor, Developer at Health Hub)*

Viktor often feels discouraged as a product developer who brought much experience into the project through his studies and previous work experience. He describes how mismanagement and unproductive discussions in team situations lead to unfavourable decisions being made for the project. In the conversation, he tries to exemplify this with a situation. First, he describes that he usually tries to distribute tasks before he goes on vacation so that he can continue working after his return, at the point where the other contributors leave off. This time, however, he did not manage to do so, partly because he depended on the company that manufactured the weight sensors. Thus, there was a cascade of delays that annoyed him.

On top of that, he resented the lack of equipment that he thought was necessary, but the team lead, Bahar, did not. In retrospect, he sees significant mistakes here that disrupted the development process and led to team arguments. In fact, this quarrel was a situation I witnessed during a visit, which is why I asked so specifically about the tense atmosphere. On the day in question, I had an appointment to interview Bahar. When I arrived, I was told to wait in the corridor while Bahar, Viktor, and Hendrik finished a conversation. They were arguing, and a door banged at the end, with a murmur from Bahar.

Viktor occasionally attributes these decisions to Bahar's inexperience as his team lead. Later, he also talks about different types of communication and considers Bahar's manner aggressive, although he emphasises not holding this against her. Conceivably, his observation only confirms what Bahar said about herself as changed; dominant behaviour should indicate that she is the actual team lead.

> […] I think that happens often with us. Like, that's the way you're talking. Some people have a personality, and they communicate in a certain way which is a little bit more aggressive than others. (**I:** Mhm.) But that's not my style, but I can understand where they're [Bahar and Hendrik] coming from. […] You know, sure, there are consequences. We've already felt them. I mean, we've already broken off work with others, that's not good, but…I'm not the boss; I do things differently, but I accept that. *(Interview from 04/02/2021, Viktor, Developer at Health Hub)*

Viktor elaborates on the extent to which past decisions were emotionally driven and contentious. He rationalises this by speaking of perspectives when he says: 'I can understand where they're coming from' and refers to Bahar's and Hendrik's temperaments and situations. He does not necessarily find the resulting decisions sensible but comes to terms with them. However, he emphasises that emotionality leads to specific decisions. He speaks of the consequences they had to bear as a team and indirectly addresses the fact that the cooperation with the consulting firm, especially Felix, had ended.

Johann sheds light on another aspect that has so far remained unexplored. At this point, he refers to the patients, i.e. the users, who are ultimately confronted with the technological development in everyday life and are on their own.

> After all, our patients are also crucial [for technology development]. They tell us if something doesn't work, so it's all about functionality. So, these are things that you can only check in everyday life. […] And yes, I mean, how they feel with the valve. If it's not a practical solution for them, or if they don't feel comfortable with it, that's important. And emotionally, because you asked before, so yes, that's emotional. They do rely on something, on technology. And you know, suddenly the living conditions change again, so they become better, less life-threatening, of course, it's emotional, what else. *(Interview from 01/08/2020, Johann, CEO of Hydro, own translation of the German transcript)*

Users provide an essential impetus for technological development as certain features may be unsuitable for everyday use. Although this lack of suitability is sometimes only seen in the experience of individual patients, these insights are indispensable for him and his team. The factors mentioned influence the further development of the valves, and, as he says, these factors are (often enough) emotional as they

are closely linked to the users' everyday lives. They often give users new hope when, as Johann says, they suddenly create new primary conditions for them that make a new quality of life possible. What Johann describes here, however, does not apply to the same extent to the incubator, which develops its applications for patients. Here, patient data only matter peripherally. Initially, they are evaluated when it comes to identifying and defining the exact deficit of the old (i.e. existing) application. In the further course of development, the team itself tries to determine whether it is suitable for everyday use. Johann describes it differently here, as the patient data seems to be indispensable for development. I could not track the extent to which they were incorporated, and, in general, it was difficult to determine to what extent user data actively contributes to the development.

> In the end, there are many reasons to decide one way or the other. Emotions also play a role again and again, perhaps even always, because if—well, let's say you have, there are financial reasons for a decision, then it can still be emotional, right? Well, emotions are always also between people, but they often enough relate to other things, you know what I mean. *(Interview from 26/04/2020, Christian, Founder of M.lab, own translation of the German transcript)*

Christian gives a general assessment of emotions in relation to innovation in our conversation. According to his assessment, emotions are always at play, whether alone, in collaboration, or concerning other problems. Even if they do not occur in the foreground or are considered a factor in decision-making, they are still part of it. He notes that it does not matter whether an emotion is identified as an impact factor; he is sure they are always part of the process behind the scenes. The innovation process, with all its decisions, is often sufficiently fragile and sensitive, which is why those involved are emotional. Situations *I* assess, people *I* interact with, and decisions *I* take based on my assessment, as situational exchanges of human experience with *me*, others, or about something, are emotional.

For Bahar's team, it is evident that emotions have influenced decisions regarding the prototype on multiple occasions, beginning with her initial anger, which catalysed the development of a solution. Also, resentment over perceived disdain makes her no longer want to continue working with Felix. Alternatively, as Viktor describes, Bahar often makes emotional 'gut-feeling decisions' for the project that he would have liked to have weighed more carefully. However, he is not exempt from his emotions, as evidenced by his feeling of not being heard and his advocacy for a different approach to the project. His feeling of being disregarded gives rise to disputes. In the end, Viktor also makes decisions for the project out of a need for security since he has been working alone. The main reason is that he wants to secure his work financially. In this context, Johann discusses an important point that does not seem relevant to the other teams I observed: what is decisive for him are the patients' emotions

as they must live with the medical solution. Therefore, in Johann's eyes, they should have the final say.

6.3 Trustful Coalitions

To overcome conflicts and create the most stable environment possible for innovating and collaborating, trust related to the cooperation with external parties, within the teams, or to oneself was highlighted in all the conversations. As previously discussed in subchapter 3.4, once a community has formed a moral economy, it benefits from its variety and creates new possibilities. However, as noted earlier by Emil Durkheim, for this to occur, individuals must transcend their previously experienced 'mechanical solidarity'. In my research, it is possible to observe how individual team members transition from their original 'archaic group', to which they feel they belong due to their similarity in work, education, and lifestyle, into collaboration in an incubator or a new team, developing a functional 'organic solidarity'. This organic solidarity refers to cohesiveness based on the interdependence of people in increasingly complex relationships whereby interdependence resulting from the specialisation of labour and the complementarities between individuals is a characteristic of 'modern' and 'industrial' societies (Adam et al., 2000; Beck, 1986; Durkheim, 2013).

However, the melting pot we encounter still needs to create organic solidarity and trust from which the group could benefit. In fact, these are fragile processes subject to the sense of belonging and thus determine the extent to which individuals feel a sense of belonging and commitment to their group. I begin by sharing a quote from Bahar that we have encountered before, describing the difficulty of leaving a familiar, exclusive group. The process of leaving the previously familiar surroundings and abruptly entering a new working group in the incubator involves facing a transitional process in which neither one nor the other form of solidarity is felt.

> If you think about it, during your studies, how many medical students have you met? Not so many. Most of them have their own campus, usually, they are located in the university hospital. That's usually on the other side of town. And, of course, you also have a circle of friends that is so exclusive. When I came out of my studies, I didn't know any software developers or technical designers. I didn't have these people in my circle. I just had other doctors. But you can't found a start-up from five doctors, not for MedTech. And then we started here with external contractors. But that wasn't so ideal. They only want the money, and what they deliver is always the minimum version. And then, by chance, we got Viktor, our technical developer. He studied computer science at MIT and has five years of experience in designing wearables. And then we got someone for the business administration part. My sister

is already back in her studies; she dropped out again. *(Interview from 30/01/2020, Bahar, Physician & Innovator at Health Hub, own translation of the German transcript)*

What Bahar describes in this excerpt is the challenge of departing from an 'archaic group', as described by Durkheim, and building a team with members of diverse backgrounds. She highlights the absence of interaction with other groups, the earlier seclusion, and the abrupt shift and adaption to situations that did not exist throughout her medical studies. She claims she had never met a software engineer or technical designer before attending the accelerator programme. The technical difficulty of realising a notion overwhelmed her, and she lacked the necessary abilities. She was required to locate people with the skills she needed and who were willing to begin the process of reciprocal translation with her. Reciprocal translation entails accurately synchronising the scopes of expectation for a prototype. This procedure is complex since it does not begin with the same terminology. Due to the diversity of backgrounds, each instance strongly emphasises what is deemed essential. As shown later in this section, the joint coordinating procedure is perpetually demanding, and she considers locating personnel with exact expectations for a specific task challenging. The external contractors were of little assistance since they had different ideas or, as she claims, 'just wanted the money' without presenting a version to which she consented. Therefore, Viktor was a capable individual who became connected with her and her initiative. He was the prospective team member to whom she wanted to commit her concept since they shared a similar perspective and vision for its direction.

Trust, as my informants emphasise, is not just a tool to build a team but a glue that holds together a diverse group with a shared sense of collectivity. It is this trust among themselves that paves the way for successful cooperation. Anthropological studies (Adam et al., 2000; Corsín Jiménez, 2011; Frederiksen, 2016; Ingold, 2000) have consistently underscored the necessity of trust in maintaining the stability and robustness of social relationships. They also reveal how trust permeates (corporate) knowledge, its underlying culture, and systems of responsibility (Corsín Jiménez, 2011). The team's shared understanding, often referred to as trust, is crucial. Equally noteworthy is how the collective narrative not only binds the team but also elucidates the societal need for the product. These identity-forming narratives, a consensus of values, are essential for collaboration and instil a common conviction in the product, one's own effort, and future reward.

In Bahar's case, corporate knowledge or an underlying culture has not yet been cultivated because of the lack of stability in the transitional phase.

At this point, it is worth taking a closer look at the different forms of trust I encountered in the field. Consequently, I must retrace my steps and revisit some earlier theories. As explained in subchapters 4.1.2 and 4.2.2, trust is both an emotional and

a cognitive category. According to their respective meanings, emotive trust may be ascribed to mechanical solidarity, while cognitive trust can be ascribed to organic solidarity.

Assume that I am a member of an ancient community in which I am dependent yet exist based on reciprocity. In this situation, I profit from a trusting relationship built on benevolence and voluntarism. This conception of trust is emotional due to its unconditional nature. Suppose, however, I trust because of artificially established group constellations, the required openness of specific procedures, or any other duty. In this situation, trust is a cognitive category of order. Consequently, trust exists on the surface, even though the ostensibly trustworthy relationship has been compromised.

I will present different interpretations of trust I encountered in my fieldwork. Distinct types of emotional and cognitive trust arise due to dependency alone.

Felix, the incubator's external consultant, describes the importance of trust and the emotionality that go hand in hand. He points to trust as an affective category and tells me how important trust is as a basis for good cooperation and how much joy he feels when this level is reached. He describes it as a feeling of 'togetherness'—a unity that happens over time and consequently due to closeness, belief in each other, and joint work.

> [...] Relationship of trust. That's great and very positive. And I also find it very emotional. Positively emotional. So, it's simply fun. And that is profitable for both sides. And then it also starts to become a togetherness. It's also a relationship that you enter over time. I, at least, enter a relationship for a time. But it can also be negative! That's always when – yes, I would put it down to trust. If the people we are looking after – yes, I called it resistant to advice earlier. This is often coupled with arrogance. With an inability to put one's own personality aside. That can tip over into arrogance. *(Interview from 13/07/2020, Felix, Consultant at Health Hub, own translation of the German transcript)*

On the other hand, he describes how the experience of working together can also be damaging if trust is lacking. He sees the insufficient recognition of his work—a resistance to counselling due to arrogance—as the result of a lack of trust. For him, this kind of situation arises when team members do not take his work seriously or, as he says, '[they are unable] to put their own personality aside'.

What Felix describes as desirable in a working relationship for himself aligns with Ingold's description that was outlined in the theoretical part: 'To trust someone is to act with that person in mind, in the hope and expectation that she will do likewise – responding in ways favourable to you – so long as you do nothing to curb her autonomy to act otherwise (Ingold, 2000: 69–70).' The working relationship should

not only be functional in aspects of the work processes but also be human and thus stabilised.

The accelerator programme's leader, Jan, makes a similar argument, albeit from another perspective. Incubator leadership has shifted away from emphasising set criteria such as the competence of external personnel or the acceptance of fully formed concepts. In our second meeting, Jan tells me that human considerations have taken on more significance since the programme's inception in 2018. However, this mainly pertains to interpersonal abilities, which, believed, would lead to cooperative trust. It is more about 'humanising' the programme or mechanised terminology that refers to human skills.

I: What's becoming important instead?

J: To make the teams understand that it is a development programme with many new unknowns; that it is a team sport where a lot of things are already there, so, from the medical-scientific area, but where there is still a lack of technology and, above all, business. And you need all that. Ultimately, I would say that team building, i.e. external companies working with the teams, is becoming more and more important, and well, human aspects, making sure – complementary skills are not enough and compatible time slots-, but in the end, people also have to, I'll say, share values and trust each other to some extent. Otherwise, it falls apart because it is an extra activity for everyone. *(Interview from 13/08/2020, Jan, Head of the Accelerator Programme at Health Hub, own translation of the German transcript)*

In the meantime, Jan focuses on the many unknowns that such an innovation process entails. He indicates that medical expertise is available but knows that the business and technology side does not exist from the start and has to be bought into the team. This is where the team processes begin, and with them, the 'human' impact factors and other unknowns. Thus, the job of 'teambuilding' is added to the objective tasks of 'job fulfilment', and he outlines this as another activity. Expertise and job-relevant skills are, therefore, something that can be checked; however, he attributes the human aspects to trust and to the fact that expected values are shared. Mutual sympathy, cooperation, and goodwill in the team remain untransparent hurdles that must be overcome by those involved. Accordingly, there are predictable and unpredictable factors in developing an idea and assembling a team. Although teambuilding measures can support the latter, the supposedly 'human factor' remains the biggest unknown. However, the question that arises in connection with the unfolded theory at this point is: if trust is the vital and human impact factor that heads, consultants, and teams desire and become indispensable as a skill, can we then start from a concept of trust that is supposed to convey the emotional – sympathy, shared values, a sense of belonging – or is it much more cognitive because it is presupposed and thus cannot be socialised? It is not so much the reinterpretation of a concept of

trust that causes perplexity but rather the confusion it creates in the mutual understanding among the team members.

In this context, the different interpretations among the members of Team *Feety* are insightful precisely because the quality of personal relationships differs. Hendrik provides a unique perspective and imparts a particular function to the concept of trust. He describes trust from the team-level perspective, which depends on relying on each other's professional expertise. He says that he and his wife – who have a different level of trust because of their private relationship – only work a few days a week in the incubator with Viktor, the developer. Hence, the team frequently faces the issue of having limited time to address problems collectively and deliberate on subsequent actions.

> I am not working full-time [in the incubator]. Neither is Bahar. And Viktor only has one day a week with us, when we can get together to discuss things. And then he has a thousand questions, a thousand things that come up, where he wants feedback, and then there is always a question, Bahar is the team leader, yes. That means she has decision-making power somehow. But I also see the team a bit more as a joint process, discussion, and decision, so also questions of leadership, actually, yes. What can I lead, how much should I lead, yes? But also, delegation, so when she gives Viktor an assignment to do something. And when he does that, then I also have to ask, okay, why do we have to give feedback so often? I trust him technically because we can't evaluate it anyway. *(Interview from 03/02/2020, Hendrik, Executive Officer for Feety at Health Hub, own translation of the German transcript)*

At the same time, Hendrik looks at the different roles within the team in the context of trust. Again, the ambivalence in Bahar's role as team leader comes to light as she has decision-making power, and yet Viktor is the one who has more technical expertise. Hendrik would like to hand these things over to Viktor to save time during development. He feels conflicted about not overriding his wife, Bahar, as she is still the one who ultimately makes the decisions. However, Hendrik is aware of the tension and wants to give Viktor more freedom in the development process. These conflicts become increasingly acute as the prototype development continues. However, this is not owing to a lack of trust in Viktor but to Bahar's conflicting responsibilities, which weigh heavily on her. Bahar told me in a conversation that she is unsure of her role and does not know how to handle certain circumstances despite her more dominant demeanour. She is also aware of the difficulties faced by the team. Still, she blames her lack of ease on sensitive triggers related to her position as a young female team leader who is not taken seriously. Overall, the squad appears well-managed, and Viktor seems to hold a more significant role than Bahar acknowledges. On the one hand, although Viktor's relaxed attitude is a nice balance, she also experiences a feeling of insurmountable inferiority. Ultimately, it is unknown to what

degree Bahar's self-confidence is affected by the disagreement, which may damage team trust.

Ryan is facing other problems with his project, *Ellie*. He is dealing with conflicts regarding patent rights, as an external company was involved in the development before Ryan got accepted at the incubator. Here, attitudes seem to be hardening, and Ryan, as the developing physician, sees himself as a mediator in the legal dispute. His focus on trust at this point differs from those described so far.

I: How do you try to solve these conflicts?
R: Yes, it's a very difficult fine line because I, what I try to do is mostly, I try to just find the people that I trust mostly at [Health Hub] and say, here's the problem I'm having, right? [The external TechCompany is] not seeing eye to eye on this or [external TechCompany] is having this idea. I think this would be a good idea, but they're like [no, Health Hub] not. So, I tried to find a person that I trust there at the [incubator] and say, look, here's the problem, how to best mediate this. *(Interview from 04/12/2021, Ryan, Physician & Innovator at Health Hub)*

Ryan turns to people to ask for advice in a delicate situation. The incubator is his employer, and at the same time, the technical development company has joined in the project for a long time. He thus looks explicitly for people he trusts to find a solution. The problem-solving process is strongly related to believing in the one person he hopes will point him in the right direction as the incubator provides minimal assistance and stability. The incubator would act solely in its own best interest due to the potential for litigation over the intellectual property matter. Still, Ryan does not want to alienate the other tech businesses because he relies on them and has an excellent rapport with them. As he prefers to surrender his job to various organisations, he only trusts certain persons rather than the whole network.

When I ask Karwen about the relevance of trust, he also says that trust is indispensable to developing or financing a product.

I: [...] Why is trust so important?
K: Mhm, there are several reasons. [...] Well, look, I mean, it doesn't work without it. You need a team you can work with, you need people who help you and don't steal your idea, for example, yes? And well, then you need money, so either you have it yourself, sure, but if not, then you need it from others, and they won't just give it to you. You have to convince them of you, your idea and so on. If you can't do that, you don't stand a chance. So, trust is the basis, no? No matter how good your idea is, if you don't get the people on board, forget it. [...]
I: How do you convince people to trust you?
K: (Laughs). That's my secret.
I: Seriously. What do you tell them?
K: Mostly what is. Sometimes what can be? Look, if you need money, you promise

> things. A bit like when you get married. You promise something for the future and assume that it will work out. […] *(Interview from 18/06/2021, Karwen, Private Investor & Innovator, own translation of the German transcript)*

Karwen is an experienced innovator and developer. In his mid-30s, he has already built up four different companies in the past and invested in four more; he is currently building up his fifth company and has recently hired three employees for it. He describes trust as the starting point for good teamwork and the possibility of financing an idea, as one depends on external help, e.g. a business angel. Trust is, therefore, the framework for everything interpersonal, based on belief in an idea, in a person, and mutual sympathy. 'Trust is the basis.' He also explains to me that these are often 'advance praises', i.e. trust granted without guaranteeing success. It is about good intentions first, but he also indicates that failure can be an option, like 'when you get married'. Although things are usually promised with good intentions, these promises may nonetheless not be kept in the future.

Various conceptualisations of trust emerge, characterised by inconsistency and lack of familiarity. They often appear solely utilitarian to advance a project. However, what occurs when a relationship purportedly based on trust proves untrustworthy? The project acts as a projection surface for all parties for an extended period, when expectations are high, and reality might surrender to a pretended relationship of trust. The gap between the desired outcome, fostered by (functional) trust, and the actual effect increases with time.

6.4 'Fake It Till You Make It'

Innovation circles often postulate that failures are inherent to the innovation process and may even pave the way for future success (e.g. Farson & Keyes, 2003; Higgins, 1975; Wills, 2019). As discussed in detail in subchapter 4.3.3, innovators commonly assume that failure is part of innovation practice. It is an optimistic interpretation of failure, which, however, means compulsory survival practice. At first, this possibility is present to the innovator in every early idea, but it is initially faded out. As Karwen indicated earlier, the intentions are usually very good. (Self-)trust, conviction, and the sharing of a narrative about the idea are the tools to create a framework that allows the development of an idea.

The framework can, therefore, be an incubator or the financier, i.e. the business angel. As already noted, my interview partners tell me about different motives for their ideas. However, these motives often do not appear later in the narratives. The narratives change throughout development, as will be shown in subchapter 7.4, since the interviewees adapt their ideas and narratives depending on whom they need to address and convince (see theory in subchapter 4.2). Narratives and un-

derlying beliefs originate from envisioning a particular future, which, as previously stated, aims to address a problem needing resolution. In this process, individuals generate images to stimulate the imagination. Due to the different worlds of experience of the individual, target groups react differently to images conveyed through a narrative. In this respect, it is crucial to decode these worlds of experience and to find a suitable image that, in turn, stimulates the imagination. In brief, the adaptation of a narrative depends on several factors. It is the iteration loops of the prototype whilst the artefact is still subject to ongoing changes. This developing corporate culture helps constitute shared values that stabilise the team or the person the innovator wants to address situationally to convince her (subchapter 4.2.3). The narrative of a project or a founding myth are equally stabilising factors that contribute to legitimising a problem solution: the narrative acts as a framework that delineates and consolidates shared values within the team, serving as a symbolically charged medium of translation capable of adapting to its audience to externalise the values established by the author. Obtaining the desired legitimacy remains a vague business, and often enough, pressure and deception are part of this campaign and are used to steer narratives in specific directions. The problem that arises from this is the traceability of feasibility and, thus, as a consequence, the innovation itself (subchapter 4.3.3). The fact that innovations fail more often is no longer a strategy for achieving 'learning success' but the inevitable consequence of an over-optimistic narrative.

The first excerpt from the interviews related to this aspect is about Bahar's initial attempts to develop the sensor sole and, building on this, her application for the incubator. She portrays to me how, based on her previous disappointment and anger due to a lack of insoles for her patients, she tried to make a sole herself and was later referred to the incubator by her supervisor. Neither the sole nor the idea was fully developed when the application was submitted. She admits to having invented the application's content and the promises without guaranteeing success. She speaks of the application as 'a tissue of lies' in the hope of placating the expectations raised.

> And then I thought, okay, apparently there are no other soles. And then I looked at the soles I had and thought, OK, they don't look that expensive. I filled up the individual parts and came up with a purchase price of 40 euros, and the soles cost 2,000 euros over the counter. And then I thought, even as a doctor, you have a bit of IT knowledge. My sister is super enthusiastic about IT. And then I ordered the things from home and thought maybe she could build them. And then my boss came and mentioned something like "Oh, the [incubator] and money and grants." Then he said, "Ms [Bari], apply!" Then I looked at the call for applications and said, well, that's not really research money. It's about start-ups and funding. And the boss again just said, "Money is money. Go ahead." I called here, and they said, "We don't have anything yet. But we might be able to get something built." And then, they said to me, "You have to submit the application by May. You can formulate

what you think you could have by then. And you don't have to present it until June." In other words, the entire application was a tissue of lies. (laughs) *(Interview from 30/01/2020, Bahar, Physician & Innovator at Health Hub, own translation of the German transcript)*

Another problem in this context is outlined by Ryan, who works at the same incubator. His product is far from meeting the expectations described on the product website, and his problem lies in the different perceptions of the product based on commercial expectations, among other things. He states how often he has to discuss with his incubator that it is a very specific product that specifically addresses the problem of anaesthesia. However, the current product website also claims that Ryan's idea addresses and covers several medical areas and problems. In our conversation, I dig deeper. The discrepancy between expectations, promises, and the development status quo could not be more visible. However, it also becomes clear that Ryan is not the one proclaiming these promises but that it is an instrument of the incubator to generate greater interest on the outside, which in turn should create a larger market. Whether these are empty promises at this point or whether the research is to be steered in a specific direction will be examined in more detail later on.

R: I think sometimes the [Health Hub] may say: "Oh, but could you use it for neurology, somehow, could this be used for strokes?" And you think, nah, probably not. I mean, there's a lot of stuff there for strokes. This is for anesthesiology. […]. Sometimes they […] envision it in a different way than I do. I think that comes from not working as an anaesthesiologist. They just may not have the needs of that in mind.

I: Would you, but on your website, for example, it says that it's also usable for different areas, right?

R: Could be applications. Yes. Could be. We have to test these out. So, there are a lot of claims, so we have to test them out.

I: But is this due to the [incubator's] wish of using technology? Yes. Also, for different areas?

R: This brings me to a very good point […]. That brings me to a good point because the [incubator] wanted, they want to make things look as dramatic and robust and saying, "this is the be-all-end-all for all products, this is going to be the best thing ever." We don't want to end up in a Theranos situation. I don't know if you're familiar with that. So, we don't want to say this is going to be the thing we can measure. It could be that when we start really testing, it could be, it doesn't work at all. It could be, that is very possible. It could just say, hey, it measures some signals, but in the end, they have no meaning. It could be, it very well could be.

I: Is it, I thought you were already testing regarding…?

R: We tested just a handful of patients to see if we get signals. So, the patients wore

these little sensors, and they were giving signals, but we don't know, do these signals actually have meaning, do they actually come from the brain itself? That's what I mean, maybe these pulse waves are just being reverberated from somewhere else in the body. And they have no correlation with brain flow at all. Because the problem is you can't really stick a probe inside and see actually what's happening. We're kind of, we're making a claim. We think, this is measuring the blood flow to the brain non-invasively through these sensors, which are basically taking in signals for the skin, the scalp, the skull, and the brain. We're making this claim. We have not proven, maybe I should have said this before. This is what we aim to do, but we have not proven that this is actually [the case], so it could be that when we do these, these tests on 50 patients and about 50 healthy volunteers, which should be happening in 2022, we can actually get enough data to show, okay, it's doing what it says it's doing. *(Interview from 15/10/2021, Ryan, Physician and Innovator at Health Hub)*

In our conversation, I find myself somewhat perplexed by the unproven nature of these possibilities. On the website[2], so far, they are presented as established successes that have undergone testing and offer prospects of a certain outcome. Nevertheless, the testing is not the case. Ryan explains to me that these possibilities and options lie in the future and could be proven, but de facto are not. He tells me, however, how eager the incubator was to formulate as 'dramatic' a story as possible from the idea that would achieve the greatest possible attention potential. It also becomes clear at this point that developers and the incubator partly overlook the user perspective. Although there are a handful of tests, they are not yet of any particular value, as the data is still too limited to make any statements. However, the patient value that exists is of hardly any importance at this stage of development. What matters so far is to sound out the potential market success. Ryan is also sceptical: he does not want a 'Theranos situation', as he says, and he would prefer to be able to develop and test in concord, explicitly for the area of application he has in mind, quite independently of other fields of application. At this point, however, his idealistic vision is thwarted by various expectations within the incubator.

Ultimately, the observation remains: 'We're making a claim. We have not proven that this is actually [the case].' Ryan lacks data to give validity to the claims. Although they have test data, they cannot say which pulse waves were measured and whether they are significant for the prototype. Ultimately, the incubator assumes responsibility for the functioning and non-functioning of an idea. However, it is imperative to question to what extent a public incubator breaches its responsibility by assuming or publicly proclaiming prospects of success that have not yet been proven. No

2 On 2 August 2022, I noted that the website has since made a change and explicitly mentioned that, until now, it is an idea rather than an available solution.

potential damage is to be assumed here, but, in the worst case, the lack of credibility remains for an institution that works with public tax money.

Karwen's description is different: he does not develop in cooperation with an incubator. However, he raises his money privately via business angels or on platforms like IndieGoGo or Kickstarter. He thus enters into a different dependency, in which he also bears much more responsibility for his promising product narratives if he wants to convince a backer. In this excerpt, we are still talking about pledges and the responsibility of an innovator if he wants to raise external funds. I also ask him about the verifiability of a good idea. He comes up with the much-used adage, 'Fake it till you make it'. This saying is a common expression in start-up and innovator circles, which means keeping a straight face in the public eye or the narrative until success is finally achieved.

K: You have no idea how much people lie (laughs). But something like that, yes, of course, no one says that out loud, but basically, […] it's an unspoken secret. But people don't do it because they want to steal money from you or something, that's clear, but out of necessity, I'd say. I've already said that. Well, you know there's this saying you always hear: "Fake it till you make it." I mean, das kommt nicht von irgendwoher [sic! Analogously: "this is not a coincidence"], as you Germans always say (laughs). […]

I: Yes, well, but you can also exaggerate, you know. So, am I, as an investor, supposed to know how long I can rightly believe in something, so something is justified hope and at what point it might ultimately just be desperate attempts to keep a bad idea alive?

K: You can't. (I: Not at all?) Well, you can try, but you need time for something like that. You would have to invest a lot of time to check whether an idea is worthwhile. (I: Mhm.) And in the end, this time might be wasted because you can also pay, right, in the hope that you'll get more money out of it. […] These are considerations, but in the end, they are calculated, of course. Often enough, it works. Or you only invest, low-risk-wise, when success is already apparent, right? I mean, you can use many strategies here. *(Interview from 30/04/2021, Karwen, Private Investor & Innovator, own translation of the German transcript)*

Karwen openly says that telling untruths or concealing factual findings is common to convince others of one's idea. The concealment has a double function. First, it protects one's motivation and helps avoid being demotivated by potential repercussions. The narrative thus has an affirmative function that manifests itself later. On another occasion, Karwen tells me that belief in oneself is essential to maintaining an idea's ideals and keep trying before giving up prematurely. He talks about how some development processes can be particularly tough over the years, also because there is not always a market or there are other hurdles in specific contexts, such as funding or legal clauses that are country-specific, as well as directives, such as

data protection regulations or even social restrictions, such as pandemics, that suddenly change needs completely. In addition, concealment helps convince others who should also believe in the idea, the product, or the company so they co-finance it. A reliable relationship with investors is fundamental.

Karwen is relaxed about the additional problem of potential fraud. Even in his occasional role as an investor, he speaks of calculated success and failure. He says that to be able to check whether an idea is an idea that possibly promises more than it can deliver, one would have to invest much time. In this context, he equates time with money, so he does not necessarily see a difference here, even though he values well-informed decisions. Nevertheless, he believes that there are different investment strategies. Ultimately, it depends on how much profit one wants from the idea, as the higher the profit, the greater the risk.

Interestingly, he later mentions that these things have to do with experience. He talks about developing a feeling for when an investment is worthwhile, apart from the fact that people 'in the scene' also know each other to some extent so that it is easier to estimate to what extent something is worthwhile. By intuition, he means a feeling that one relies on inwardly and that thus represents a compass or navigator in these decisions. According to Karwen's description, it is a kind of learned inherent knowledge, in both a positive and negative sense, which is emotion-based. However, the problem of the unverifiability of an idea remains, whereby inherent knowledge does not help to overcome the final insecurity in this context. Nevertheless, the concept of knowledge can remain as such; ultimately, it is about a form of knowledge that is not quantitative but qualitative-situational and, in this respect, has a meaningful value for the person who has recourse to it.

For all cases presented, acting pretentiously is part of the business when introducing one's idea. 'Fake it till you make it' becomes a necessary belief and a strategy to overcome and negotiate the hurdles of insecurity. This phrase is part of an entrepreneurial culture I have encountered in incubators and makerspaces. Not only is it ubiquitous, but it is also inhaled and incorporated. It not only blurs one's insecurities, but it also makes faking facts acceptable to a limited extent. The justification for it lies in the culture of mischief that gave rise to the saying and which it reproduces.