Acting on purpose:
the reflections of MIT student entrepreneurs

by
Othmane Benkirane

B.S. Energy Engineering
University of California, Berkeley, 2015
M.S. Civil Engineering
University of California, Berkeley, 2016

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Signature of Author: _____
Department of Technology and Policy Program
February 1, 2019

Certified by: _____
Jinane Abounadi
Executive Director, MIT Sandbox Innovation Fund Program, School of Engineering
Thesis Supervisor

Certified by: _____
Fiona Murray
Associate Dean of Innovation, MIT Sloan School of Management
William Porter (1967) Professor of Entrepreneurship
Thesis Supervisor

Accepted by: _____
Noelle Selin
Director, Technology and Policy Program
Associate Professor, Institute for Data, Systems, and Society and
Earth, Atmospheric and Planetary Science

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Abstract

The study of social systems has increasingly relied on data collection and analysis to draw conclusions. In parallel, the research community has often tried to understand entrepreneurs quantitatively, e.g. by understanding which behaviours or personality traits most often correlated with entrepreneurial success. While a quantified representation is essential in modeling what is being studied, it hides away the mental processes that create behaviours.

Arguably, the people who engage the most directly with systemic change are entrepreneurs. They have to create their own system (a company) and connect it to its wider network (clients, investors, etc.). Most importantly, the more uncommon their idea is, the less they can rely on existing frames to bring their ideas to fruition, and the more they have to reflect on the dynamics of their wider context and how their company can integrate to it.

According to constructive-developmental theory (CDT), the ability to see context dynamically is not a personality trait, but a structure of perception. Our meaning-making—how we create that perception of the world—grows in complexity as we delve into our reflections. CDT makes the separation between a structure in which value is defined by the contexts that we are in, and the next more complex one, where the self defines value.

This thesis is an early attempt at understanding the experience of systemic change, and the growth in perception that happens alongside it. By bringing CDT and associated theories of the mind into the experience of entrepreneurship, I sought to understand how entrepreneurs make meaning of themselves in the course of their growth, by asking them directly. This is the first known study that maps the meaning-making complexity of entrepreneurs using the subject-object interview, CDT's qualitative empirical research method.

I found that, as perception became more intrinsic, the definition of value went from seeking to have what we wish to have, to leaving a legacy through impact, to acting in harmony with our meaning of value. Instead of seeking purpose, entrepreneurs who perceive intrinsically act on the one they already have. Instead of seeking value, they share it with others in all their interactions.

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1 Introduction

If you've ever filled a survey, you probably know what a Likert scale is. Psychologists use that term to describe answers to questions that look like:

> "On a scale from 1 to 5, 1 expressing strong disagreement and 5 expressing strong agreement, how much do you agree with the following statements?"

These types of questions are used across domains to answer certain hypotheses. For the simplicity and quantifiability of numbers, Likert scales makes the assumption that the numbers have to mean the same thing for everyone. In a personality question like "I value unconventional opinons" [1], every word hides an assumption:

I This type of questions is answered by the one whose personality is assessed, which means the actual measurement is not personality but people's beliefs on their personality

value How unconventional is unconventional?

unconventional opinions Everyone who answers this question in the survey is assumed to have the same meaning of a convention

Rarely are people then asked to write about those opinions—text is not nearly as neat as numbers. Yet, that reluctance misses the opportunity to understand people's actual opinions, and how they came to believe in it. If personality assessments actually assess people's beliefs about their personalities, where is that belief from? And can we learn anything from that place instead?

Meaning-making, the process through which we assign meaning to our experiences, is the source of this belief. When meaning-making is queried, the questions that are asked depend on the answers given, in conrast to a Likert scale where questions are asked before meeting the person. Instead of asking how much people believe in a thing that's assumed to be the same for everyone, we seek to understand the underlying construction of that belief [2].

If someone says "I value unconventional opinions" to you, you can query for meaning-making by asking "why?", or "what is most

Bio and future of this work:
Originally from Morocco, I first sought to understand how to develop sustainable systems through energy engineering at UC Berkeley. Towards the end of my time there, I realised that sustainable infrastructures still assumed that people would act unsustainably, and I therefore set out to understand the sources of this unsustainability, believing that a growth in consciousness could address it. This thesis constitutes my answer so far, and is my first written step in acting towards cultures where self-fulfilment is supported. I now hope to discover more of the blind spots in human consciousness and how to help people realise and grow beyond them.

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valuable in unconvential opinions for you?", "how do you know an opinion is unconventional?". The answers will depend on each person's experiences and understanding.

Researchers rely on these measurements to understand the life of entrepreneurs, and have found various traits that entrepreneurs seem to share. Meta-analyses such as [3] tell us that traits such as need for achievement and self-efficacy are shared by entrepreneurs. But if we look at the definitions of these traits, it would seem almost paradoxical to not see them in entrepreneurs. Self-efficacy [4], for example, refers to people's beliefs about their capacity to "perform the tasks and roles" they assigned themselves. Could entrepreneurs ever be successful without believing they can perform those required tasks and roles? Besides, entrepreneurs *create* their companies, so the tasks and roles they are performing are, strictly speaking, different for each person. Yet, current research, through its usage of primarily quantitative methods, treats entrepreneurship as a career choice [5].

Instead of asking entrepreneurs whether they believe in sweeping statements, I queried them for meaning-making, and learnt what their beliefs were, why they held them, and how they built them. Nineteen student entrepreneurs in the MIT Sandbox Innovation Fund volunteered to reflect on the meaningful experiences of their choosing. The results, far from entrepreneurial stereotypes, instead paint the human experience of seeking and building purpose in entrepreneurship. *Who am I beyond myself? What do I want to dedicate my time here for?*

With more personal development came more complex answers and an increasingly inward reflection. As they showed more practice at building an intrinsic meaning for purpose, they shifted away from an extrinsic definition and started perceiving uncertainty as a canvas of self-expression rather than a source of angst. Rather than threats, challenges became another opportunity to be surprised. These observations are compiled in Chapter 4.

This vision does not simply enable entrepreneurs to feel better about themselves. Having an intrinsic meaning for purpose means they can build their understanding of value across the contexts they find themselves in. They can perceive how the principles ruling separate contexts can be connected, and create new meaning from those connections. In doing so, they bring their own purpose to humankind, and affirm their own meaning of value into the world. This process is described in detail in Chapter 3.

The origin of this perception, the meaning-making of each and every one of us, is described in Chapter 2. In it, the processes that help us navigate and grow in this existence are defined, sketching a picture of human development that starts with reflection.

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When we discuss human development, *what* is being developed?

[6] quotes [7]: we are organisms, and the "business of organisms is to organise" experiences into *meaningful* interpretations—an interpretation that makes sense to us.

For Kegan, "human being *is* meaning-making". Reality and its interpretation are indistiguishable to us. Therefore, our self and meaning of the self are indistinguishable in our perception.

Our understanding of reality is actively constructed and re-constructed as new information comes in. Transformation, as is described in [8], often happens as new experiences force us into re-thinking what we believed about the world—such as loss or life transitions. Entrepreneurship is a life transition by the very fact of its stated aim to create a company. What transformations does entrepreneurship cause, and under what circumstances? To answer that question, which is the subject of Chapter 3, we must first understand what is transformed and how. Kegan's [6] answer to the introductory question is that human development is *meaning-making development*. The process of re-construction progressively unfolds more and more complex meanings of our experiences.

In Section 2.1, an example is drawn and explained to provide an intuitive sense for different ways of making meaning. In Section 2.2, working definitions for meaning-making and its components are provided. In Section 2.3, we look at the ways in which we construct and grow meaning in general through the analogy of skill development. In 2.4, we look at why we often prevent our own growth. In Section 2.5, we look at Kegan's [9, 10] description of the ways in which meaning-making *itself* is developed and grown through our reflections.

2.1 *Spices make the chef*

You're in a restaurant, raved about by your friend for its uncommon flavours. You asked for the chef's special, a "Tajine of chicken with caramelised plums", and after a short wait, it's there for you to enjoy.

Situation 1 After a few bites, you think "such a tasty dish!". You were sceptical of eating meat with a fruit, but as it turns out Moroccan cuisine really *is* that amazing. Your friend was right, so you'll trust him more; this restaurant is a place to remember, it's now definitely on your list of places to come back to. Maybe you'll try another dish, and find out how much you're going to fall in love with the location and the gastronomy. You might even consider travelling to Morocco slightly more seriously, if you're the traveller type.

Situation 2 The presentation of the chicken is impeccable, with plums and almonds carefully laid out on top and a salivating steam all around the plate. You distinctly smell the cinnamon and caramelised onions linking together the various parts of the dish. The first few bites further reinforce the curiosity elicited when your nose first tasted the meal. "Very interesting usage of cinnamon in this sweet-and-savory dish". It's not the first time you experience this alliance; you've been a longtime fan of mole. Plum, though, is a first. You then go on and ask the chef how the marriage between plums and chickens is done, and she tells you how fruit tajines in Morocco use cinnamon to ally sweet and savoury. *Fruit* tajines? So there's more? Coming back home, you find other recipes online and try your hand at beef with peaches. Soon your creative mind (or your cravings) requests a fusion of your new discovery with mole chicken, and since the fruits need to be blanched before, you choose your favourite fruit in that category, mango, to create a new dish.

While the premise for both experiences is the same, the two situations differ vastly in their interpretation. The *frame*[1] of the first situation is one where you have hierarchies of trust in restaurants, cuisines, and friend recommendations. The dish you ate updates that frame according to how *tasty* you thought the dish was. There's no *model* for you to reflect on *why* the food was tasty, making taste obvious to you and its construction implicit.

The second situation differs fundamentally in one way: you want to know *why* that food was tasty. The frame you have may very well encompass Situation 1, but your consciousness also seeks to uncover what made that dish tasty. Though in this hypothetical situation your mind is already attuned to the idea that spices can link together contrasting flavours, and you have other experiences with conceptually similar dishes, you would have learnt about how food can be tasty as you explored the world of cooking anyway. With enough experience exploring that frame, you can start creating models that help you deduce new dishes.

[1] [11] provides a computational analogy for a frame:

> A frame is a data-structure for representing a stereotyped situation, like being in a certain kind of living room, or going to a child's birthday party. Attached to each frame are several kinds of information. Some of this information is about how to use the frame. Some is about what one can expect to happen next. Some is about what to do if these expectations are not confirmed.

2.2 *Meaning as our interpretation of reality*

2.2.1 *Words are empty of meaning*

> "It's like a finger pointing away to the moon. Don't concentrate on the finger or you will miss all that heavenly glory." — *Bruce Lee*

When describing our own meaning-making, we must accept that the description of meaning-making itself is meaningless.

The words present in this thesis are all *referents* ([12]). Just like the finger pointing to the moon, they cannot on their own adequately describe the moon. Rather, they can orient our head towards the celestial object. This separation is visualised in 2.1. Words do not actually embed the thought, and any attempt at defining meaning is necessarily meaningless.

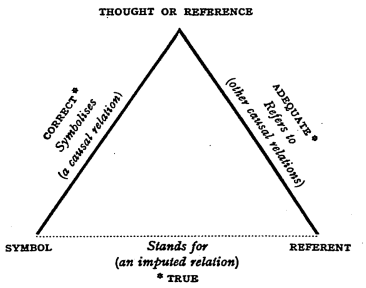

Figure 2.1: The semiotic triangle [12]

Rather, words help create and federate meaning. The usage of the previous restaurant example, and all the ones following, is a consequence of this realisation. Concrete examples and theories mentioned provide complementary referents to the experience of meaning, the process of meaning-making, and its forms.

In other words, it is easier to look at the moon when several fingers point at it.

2.2.2 *Organising our experiences*

Our brains have to make sense of a lot of information to build an understanding of this world. Our eyes alone would send around 10 million bits per second to our brain, if we saw it as a computer ([13]). Since we also rely on our own memory, the actual scale of raw information is multiplied by the timespan of our experiences.

Because of the sheer volume of this information, we somehow have to organise it into bits that we can handle. We therefore organise the parts of our experiences that can[2] be linked to a given referent, and use the term "concept" to refer back to that organisation [12].

[2] the meaning of what "can" be linked being itself subjected to this organisation

2.2.3 *Concepts as organising principles*

Concepts organise experiences Once we are given a referent, what does it mean to interpret it?

The generalised context model [14] uses the term *exemplar* to refer to the bundling of experiences together. The interpreted idea itself is the organising principle of the bundling. Assuming you're reading this work on an electronic device, the idea of your electronic device is an example that you can tie to the *examplar* of an electronic device, which encompasses all the memories you have of things that you can tie to electronic devices. A prevailing theory in neuroscience posits

that our memory storage itself is infinite, because a memory is a partial returning to the brain connection we had back when we lived that experience [15]. It is our recalling that is limited by our ability to bundle those experiences together.

Some related ideas are more obvious than others. Though a Tamagotchi is an electronic device, it's much less likely you'd mention it than a computer or a phone [14]. More remotely, the exemplar of an electronic device also embeds its relationships with other exemplars. One that is shared amongst all instances of electronic devices is their usage of electricity to function. Others are more specific, that is, they only apply to certain instances of the exemplars: brand, size, ownership, etc. In turn, those specific features can apply to completely different exemplars. New experiences can modify the bundling. For example, our concept of a "large phone" changes as larger screen sizes become more normal, thus changing the exemplar of a large phone.

For our purposes, a "concept" refers to the organising principle governing a certain set of experiences.

Concepts are interconnected The organising principle of "electronic devices" is in essence simple to us: the decision to assign the label of an electronic device on something happens without your conscious input on it. Yet, since it refers to all your experiences with electronic devices, which in turn possibly relate to all the other organising principles that can be elicited by conceptualising the different aspects of electronic devices, the simple act of thinking underlies an extraordinarily complex stream of experiences[3]. As such, concepts are interconnected. Thinking about a concept enables us to then think about any concept that we conceptualise as being connected to it.

[3] These experiences need not have been lived, either; the organising principle can be organising anything, including hypothetical situations. In that case, the hypothetical situation is a mix of experiences filtered out to be internally consistent with our assumptions.

2.2.4 *Meaning as the experience of an organising principle*

Summary of definitions In this work, a "meaning" is the experienced understanding of a concept. The process of "meaning-making" is the construction of that meaning, either from the recombination of concepts previously constructed or the inclusion of new experiences into awareness [9]. Since meaning is based on our experiences, then meaning-making changes with every experience.

Change of meaning Because concepts organise experiences, every new experience slightly changes all our concepts, and therefore the meaning that we experience from it. Seeing an organising principle as a function of all our experiences:

1. if the experience isn't tied to the concept, our organisation now

has to exclude that experience. This case is technically impossible as the concept of the self is present in all our experiences[4].

2. if the experience has some link to the concept, then that concept will now include the relevant part of the experience to the organisation. This can result in the previous example of a phone exemplar growing alongside the growth in screen sizes.

3. if the experience contradicts a rule that the concept is based on, then the concept's current organising will be challenged.

[4] As a corollary, the concept of self changes with every experience

The third case presents a fork: will we discard the contradicting information or will we be willing to re-construct the way we made meaning?

Sometimes, the contradiction is sought after. When babies learn to walk, a fall will inform them that the muscles they are currently using do not make for a stable posture. Using that experience, they can update the way they apply their concept of walking onto their bodies when they try again. Other times, our whole meaning-making is challenged, such as when a person close to us dies and we question life and death, and therefore our own [16]. Updating the concept means questioning what we hold true about our lives, and therefore what provides us safety [17]. This updating mechanism is reflection.

2.3 *Reflection as meaning development*

2.3.1 *Learning and perceiving*

When we reflect, we check our understanding of the world against our experience of it. This process is captured in the loop present in Figure 2.2, adapted from [18]. Walking through each step, we engage in:

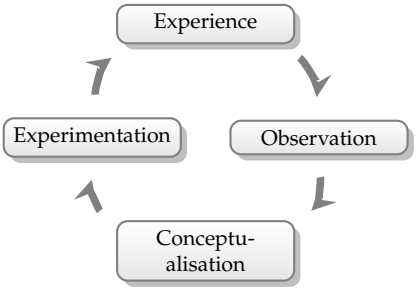

Figure 2.2: Kolb's learning cycle.

Experience This is our concrete experience, whether we intended to have it or not[5].

Observation This is our understanding of the experience, a filtering of the raw sensual information into a meaningful account. Since we use our current understanding of the world to observe it, our conscious observations are already subjected to our assumptions then. That process is necessary: the raw data our senses provide us are too large to handle, so we tie our experiences to existing concepts to make the information digestible. Whatever concepts we hold when we observe is what we'll refer to as what we are "conscious" of. We can lessen the influence of our past beliefs by being mindful of the difference between experience and observation—in other words, to observe our observation.

[5] Thought experiments can fulfil a role similar to that of experiences, but since they happen within our mind, they rely on our meaning-making. They can be useful to reinterpret a past experience in terms of an updated meaning-making, but relying on them too much can prevent the unexpected from being observed.

Conceptualisation When we conceptualise, we integrate our observations into the rest of our meaning-making system. This process is, again, subjected to the current state of our meaning-making. The shape of the incoming observation is essential. If all we retained about the food was its "tasty" feature, we might conceptualise the restaurant as being one to come back to. If, on the other hand, we had more consciousness of the different ways food can be tasty, we can tie the experience to our previous understanding of cinnamon's usage in cooking.

Experimentation This part of the process turns the loop from passive to active. We test our updated conceptualisation by prototyping it, and then observing the resulting experience and keeping the process going. We might try, for example, another dish at the restaurant, which will increase or decrease the restaurant's place amongst places to visit again. Or we might look for other sweet-and-savoury recipes from the cuisine we tried and attempt a recipe at home, further experiencing the role of cinnamon as a bridge between flavours.

Whether our meaning-making appreciably changes or not depends on what we end up reflecting explicitly on (the *objects* of our reflection), and what we implicitly assume to be true (what we are *subjected* to). That is why learning is an iterative process. Just like we needed to play with balls of Play-Doh repeatedly until we could see quantity, we need to build a body of observations and link them together to see the assumptions we were subjected to. We'll further specify two ways of observing:

- *downloading*, from [19], which assumes the meaning-making system is valid at the time of the experience, and therefore is unlikely to be modified consciously through the learning process. Meaning-making is used to observe, but isn't itself observed.

- *reflection*, which questions a set of assumptions of the meaning-making system as it relates to the current experiences ([20]). In that sense, the meaning-making itself is observed. When we reflect, we consciously add more experiences to the object of our reflection.

Let's say we seek to reflect on what made that food tasty. We now have to delve into the world of spices, flavours, pairings, etc. There is, of course, a wonderful body of knowledge about it that exists outside the realm that we can conceptualise, until we learn about it and integrate it to our meaning-making. That body of knowledge is necessarily more arcane when it comes to ourselves, because each

person lives a fundamentally unique life. Though we can tie our self-concept to collective experiences, such as culture [21], ultimately the concept of an action in the moment changes every moment (because the moment is different), and it changes our self-concept (because our concept of self is a bundling of all our experiences [9, 10]).

2.3.2 *Assumptions*

The difference between "downloading" and "reflecting" has been studied extensively in the corporate world, in the form of single and double loop learning. Pioneered by [20], "single-loop learning" refers to an iterative system[6] with three components: actions, expected outcomes, and actual outcomes. The reflection is framed as: how do we modify our actions on the next iteration of the system so that our actual outcome is closer to the expected outcome?

[6] For example, a company's quarterly earnings or a researcher designing a new invention may be engaging in an iteration of that system.

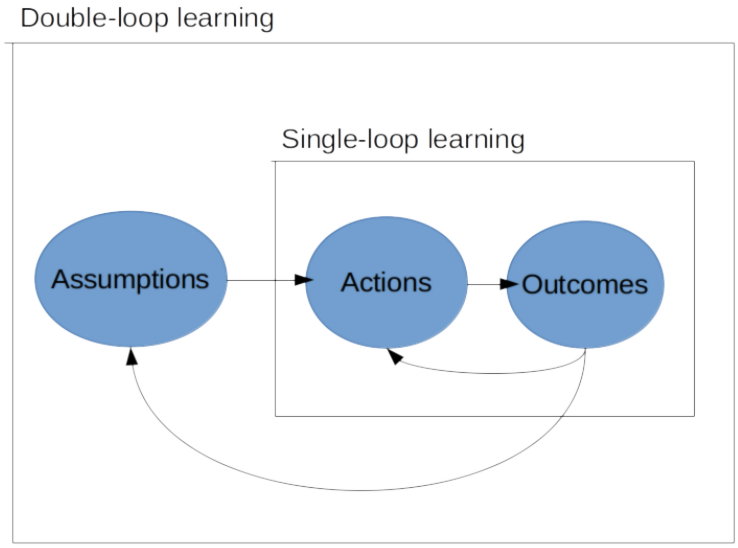

Figure 2.3: Single & double loops of learning

In extension to this frame, double loop learning recognises that the action-outcome loop is founded on assumptions that must be reflected upon as well. The assumption that the outcomes are worth pursuing, for example, can only be assessed from the context in which the outcomes embed themselves.

Unfortunately, double loop learning requires stepping outside of the frame of single-loop learning, which is generally counter to our education. Because of its emphasis on clear objectives to meet (such as grades), we were not challenged to come up with our own processes to get to our objectives.

Imagine that, as a perfectly law-abiding citizen, you've only ever used

> crosswalks when walking across roads. You're then put into a country with no crosswalks, and expected to be adept at crossing roads in that environment. But crosswalks were made because roads were unsafe, right? So how can other people cross so easily? They probably have an intuitive understanding of car speed and the pace they need to walk at. So you ask enough people who seem seasoned enough in road crossing to walk with you until you develop that intuitive understanding. Besides, it isn't as risky as one would think: cars in your origin country assume everyone will use crosswalks, so their model for driving doesn't include the possibility of a pedestrian showing up in the middle of the road. The drivers here do.

This example draws our attention to the complex nature of assumptions. Often, reflecting on the assumption results in a new organising principle (here crossing roads without crosswalks). [22] calls this process "nuancing" rather "questioning". Instead of an absolute "I cannot cross roads unless there's a crosswalk", the assumption is replaced by an understanding of when it is safe to cross the road, when it is not, and how to do so.

2.3.3 *Practice*

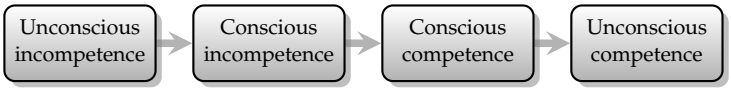

Figure 2.4: Stages of competence

To have a strong organisation for the organising principle, we must create the experiences to organise. That is the purpose of practice.

Uncovering assumptions is a learning process, one where we compare a thought that seems unfit for our purposes with new data coming from the world. It is recursive in nature. After realising that we must learn to cross roads without the crutch of crosswalks, we must build an organising principle for crossing roads. Each new attempt at learning reveals the various components of crossing roads that we were not aware of; we come with gaps in our thinking as our observation progresses. Eventually, we have a working model[7] for the various elements needed to safely cross roads, but that model still requires attention to put into action. With further application of the overall model, we get to a point where we don't have to consciously apply the model, and just *know* when and how it is safe to cross a road.

[7] In this work, a model is a concept that includes a purpose

Although various models for intuition have been proposed [23], we will use the simple four stages of competence [24] to illustrate the growth of a skill. The image in Figure 2.4 illustrates the four stages. A version of this model is used in [17] to illustrate the change of perspective that happens as we recognise and nuance assumptions about

ourselves. In that case, the skill we learn is a new way of seeing the world.

Unconscious incompetence We do not know a skill, it is beyond our consciousness. In this case, we haven't gone to the country with no crosswalks yet.

Conscious incompetence The existence of a challenge that makes us aware of skills we don't have yet prompts us to re-evaluate our abilities. At this stage, we have little understanding of what it would take to learn such a skill. We may use some past knowledge and apply it on the current situation, request the assistance of competent people in learning the skill, or rely on a body of knowledge to teach us such a skill. The process that goes from conscious incompetence to unconscious competence we will call *integration*.

Conscious competence We have a working model for the skill we are trying to learn, but applying it requires concentration. The model still has kinks to be worked out, so it is subject to modification before being totally integrated. At this stage, failing is important to understand the limits of our current model and change it to be more resistant, and therefore has to be active [25]. Learning occurs at this phase. It is highly analytical: processes are broken down into chunks that we practise on separately and then re-integrate to the overall practise of the skill. We are experiencing the various parts of the skill that we are to make an organising principle for.

Unconscious competence The cognitive load of using the model decreases until it can be used without having to consciously think about it. We have *integrated* it to our meaning-making: we can designate it as its own organising principle and *intuitively* use it—that is, without thinking about its organisation. For example, in my mind I'm "walking", not "raising my left foot with a slight upwards angle, activating the left hip while moving my support to the right hip to then put my left heel on the ground in front of me".

As a concept, the competence we progressively learn shares the same body of experiences all our other concepts do. Therefore, it is just as interconnected. When we learn something, we re-use the previous experiences that are conceptually similar to the one at hand, and adapt it for that purpose[26]. Snowboarding is simpler when one knows skating.

There is therefore a qualitative difference between new challenges that can be broken down into subchallenges that we have experience with, and those where we don't. Ronald Heifetz[27] provides

a vocabulary for that distinction by talking about "technical" and "adaptive" challenges.

- Technical challenges are recombinations of problems whose solutions are known. Though when we build a dam, it's definitely the first dam that will be built at that place, we can re-use our dam-making knowledge on that new environment.
- Adaptive challenges require reflection on the subject. They require checking our meaning-making, because the solution simply cannot be found with the current set of assumptions that we are making about the world [27].

Adaptive challenges are more difficult to take on. They require changing our meaning-making, so to a certain extent, the self—and by association the self-preservation habits we rely on to feel safe [17]. When adaptively challenging ourselves, we are putting in question the validity of our current meaning-making—in order to construct a new belief, we must question the validity of old ones, which means that in between there is an absence of a stable reality. Rather than taking on the challenge, we may hold on even more tightly to the challenged worldview.

2.4 Self-preservation: resisting assumption awareness

2.4.1 In organisations

In organisational contexts, [28] emphasise the equal necessity of challenge, practice, and support to grow worldviews:

Challenge (edge) ideally goals that each person has chosen as an adaptive one. Challenges help set a demand higher than their current meaning-making. The challenge helps provide a support for reflection that can eventually rise unconscious incompetencies to consciousness.

Practice (groove) ensures that such challenges are tackled often enough in ways that are handlable by the person. In the stages of competence model, they provide opportunities to integrate conscious competencies into unconscious competencies.

Support (home) helps lower the fear of failing at the challenge, encouraging overall practice and providing assisting knowledge to build organising principles to respond to the challenge. This can be likened to the growth from conscious incompetence to conscious competence, though a lack of support may prevent the whole process from being engaged reflectively anyway because assumptions may not feel safe to question.

In the absence of such a feeling of support, some assumptions may feel to unsafe to even rise to consciousness. This phenomenon is described as an immunity to change in [17]. Just like a physiological immune system, our psychological immune system works to keep ourselves safe from harm. When we believe that a certain behaviour we do will cause us some type of harm, we will act to prevent it. These harms may not be physical. Rather, the self's growth in complexity connects it to more and more concepts, meaning the "harm" may be losing a job or friendships.

Through the immunity-to-change process, realisations of this sort may occur:

"I assume if I speak out, I will create conflict" may prevent expressing my opinion in workplace settings

"I assume that food is my sole source of pleasure" may keep me from getting on a diet

"I assume if I don't have something to say, then I'm worthless to the other person" may keep me from becoming a better listener

"I assume if I open myself up, people will see me as a mess and leave" may keep me from fostering close relationships (including with myself)

2.4.2 *Personal practice*

In order to grow beyond the assumptions that go against our developmental goals, we must go through a system similar to the one outlined in 2.3.3 (from [17], chapters 8 and 9. See also [29] for an article tackling the subject):

Unconscious→conscious immunity We first uncover the limiting assumptions that rule us through a four-step "Immunity-to-change map":

1. we set a developmental goal that we feel we want very strongly even though we prevent ourselves from reaching it
2. list the actions that we do (and don't do) that go against that goal
3. find the worries and hidden commitments that justify those actions
4. express what assumptions must be true for those worries to be justified (as in the margin note)

Conscious immunity→release Using the awareness of those limiting assumptions, we design a test that is safe and modest (the worst case is bearable for us), actionable (it's doable soon), and adopts a research stance (it questions a chosen assumption directly as if it were a hypothesis—the goal is *not* self-improvement[8], but to understand our meaning-making). The tests can be as simple as watching ourselves doing the same thing now that we have an awareness of the assumption; seeing someone we can relate to that doesn't live with that assumption, asking a friend for advice, finding a mentor or knowledge for guidance, etc.

[8] The idea of self-improvement may be subjected to frames in which the limiting assumptions still act beyond our awareness

Conscious→Unconscious release This process will likely uncover more assumptions in areas wider than the realm of the initial developmental goal[9]. As we uncover more of those assumptions and rewire the habits we adopted as a result of believing in them, we

[9] if it's been tied to the self, the limiting assumptions has some say whenever the self is involved

build our intuition leaving them and gaining a wider perspective on the world.

When we realise things about ourselves, through reflection or a new experience, we may come to a spontaneous understanding of a limiting assumption, and we may naturally go through the release process outlined above. As we test the validity of the assumption, we provide nuance to it, and therefore connect it to more of our meaning-making.

2.5 *The fruit of reflection: meaning-making development*

2.5.1 *Complexification: intuitively perceiving a concept*

Some concepts as basic for us as quantity were not intuitive for us at some point in our lives. After all, children until their seventh or eighth year live in a world we can only guess to be magical, where rules about what is true and what is not are not clearly set [22] At that moment, our meaning-making wasn't formed well; most of our challenges in perception were adaptive. There was a point in our lives where we were still making up the beliefs we would eventually hold ourselves to. We needed a certain experience of reality before we could cement an interpretation of it. Piaget saw some of this lag and its rules in the aptitude tests he would administer to children [30]. Most importantly for the purpose of this essay, Piaget devised a set of tasks he called "conservation tasks".

> We gain *object conservation* around the time we cannot play peekaboo anymore [22]. At that moment, we start believing that things can exist beyond our direct perception of it. We're able to separate ourselves from the rest of the universe, and if we see a rubber ducky flowing towards the drain, we'll know its fate won't be the one that the water is facing. But *conservation of categories* wasn't yet mastered. To that magical consciousness, there could suddenly be more water, simply by transferring it to the glass. Quantity is a durable feature of all the things that can hold quantity. The two glasses in the previous example are then *alike* in some way, that is, part of the same category. Despite their different shape, they both have the same quantity.
>
> Another experiment involves squishing a ball of Play-Doh, which means less Play-Doh as long as we haven't integrated the idea of quantity. This happens through experiencing the ball of Play-Doh through its different shapes and progressively being more aware of the notion of quantity stably tying together the different shapes of the ball.

Figure 2.5: Youtube.com: "4.5 year-old child on Piaget conservation tasks"

Figure 2.5 links to a Youtube video showing a child performing Piaget conservation tasks, including the Play-Doh ball.

The level of complexity we use grows as we grow in our reflection. That's why it makes sense for our younger selves to believe

in magic: our body of experiences was still building up to form a *durable* understanding of a truth, that is, one spanning beyond the current moment. Similarly to road-crossing, or any other skill for that matter, the intuition we have built around the understanding lets us do it without having to think about doing it—complexification arrives when we practise enough to be unconsciously competent at perceiving a certain concept. Because we don't have to think about organising the concept, we can use it in our meaning-making without spending any of our consciousness on it.

2.5.2 *Consciousness is a skill*

By practising connecting concepts together into more complex concepts, we can in turn connect those concepts together into even more complex ones. The concepts we can intuitively perceive with a certain level of practise are what we can treat as *objects of reflection*—that is, we can update the way they are organised with each other. Everything beyond that is what we are *subjected to*—we cannot reorganise them just yet, because the organising principles are not there yet. Constructive-developmental theory (CDT) calls orders of consciousness these progressively more complex structures we connect concepts within [9]. In this thesis, we'll call them *perceptions*[10] or *structures*. Table 2.1 shows the progression of the subject-object transition, and the rest of this section explains these perceptions more in detail.

[10] Because that's what we see meaning through. From 2.3.1, we know interpretation is not separable from experience, meaning we perceive through our meaning-making

Perceptions reflect the self CDT assumes that the *self seeks coherence*. We are meaning-making ([10]), which means that the overall complexity of meaning-making is assumed to be consistent across the meanings made. Theories derived from CDT provide a bit of nuance to this belief. Growth Edge Coaching [22] talks of a center of gravity, where we are most comfortable making connections at, and trailing edges, where we haven't reflected as much, and leading edges, where we think the most complexly. Maria Baxter-Magolda contends that academic education's focus on cognitively challenging students leaves complexity as a whole much less well developed [31, 32].

Equilibria and transitions There are times in our lives when we perceive ourselves in only one way [10], that is, times when we conceptualise the various facets of ourselves with the same complexity. If we are challenged in a way that requires new connections to be made at a level that we are not intuitive at yet[11], our meaning-making can make use of the more complex perception in more areas. As we move across the stages of competence, the perception we have intuited

[11] Another understanding of an adaptive challenge

and the perception we are learning both play a role in our meaning-making [2], progressively making more concepts understandable for us[12].

[12] The progression of reflection means that, in the absence of adaptive challenges that require a fully intuitive usage of a perception, some people may stay at a transition for a significant part of their lives.

2.5.3 *Moving through the structures*

The very first reflection we had was on whether we are separate from the rest of the universe. It results in us believing in the concept of self. Before that, in the *integrative perception*, our meaning-making was subjected to everything [2]. Peekaboo works until a certain point because even separating time into the present and the past wasn't a given. The process of complexification follows a similar pattern regardless of the complexity [2]:

separation where we notice that an organising principle actually bundles concepts or experiences that are contradictory

integration where we practise connecting the concepts with a more complex structure, in which the contradiction is adequately explained.

Childhood perceptions The conservation tasks in 2.5.1 showcase the two perceptions that are usually learnt through childhood.

The *perceptual* perception[13] is the one that fails at recognising the durability of quantity. actions have an effect on objects, so an object is changed by an action—resulting in the belief that the Play-Doh ball is different when we squish it. We have to understand that *certain* actions have *certain* effects on *certain* things, and learn those conditional rules, giving a qualitatively more complex structure to generate concepts from one that has to include, for example, the various properties of the objects that can be changed by various types of actions. That is the *instrumental* perception, which has a durable understanding of truth and can see quantity as constant throughout time.

[13] All names, unless otherwise noted, come from [9]

However, these rules are absolutely true for whatever features of a certain object we are considering. For example:

> My nephew's latest request for a gift was a "boy's gift", and when I asked him what was a "boy's gift", he mentioned a Nintendo Switch game.

With the instrumental perception, the validity of a desire, or *impulse* in 2.1, makes sense because of the features of an object. My nephew therefore believes that he wants a video game because he's a boy, and boys like video games[14]. He cannot think of his preferences yet, because that would require seeing the connections between the various

[14] I decided instead I didn't want him to practise believing that my coming back home means he's receiving a gift.

desires that he has. That happens with the socialised (or extrinsic) perception, the most common perception found in adulthood ([17]).

2.5.4 Socialised/Extrinsic perception

The socialised perception on ourselves develops as we learn to differentiate the various needs and preferences of people (ourselves included) and consider social norms the source of authority. Structurally, we can hold *abstract categories* in our reflection: In this work we will primarily use the term "extrinsic" to refer to this perception.

Similarly to the Play-Doh ball that the instrumental perception can see as the same object independently of its shape, holding abstract categories means we have a model for what our impulses over time are. What we like isn't tied to a general category, they're our own. The definition of good is also now separable by concept. Being a good spouse, employee, a good friend, etc. each have their own definition. We'll call "frame" the specific structure of societal roles. A frame contains its own definition of value and process to achieve it. Often, we can project that definition of value onto the outside world and therefore determine how to hone the frame. There's a body of societal knowledge that we can source the shape of the frame from, giving rise to the adjective "socialised". For example, to be a good leader, one can learn about leadership practices.

The description above is voluntarily paradoxical. The definition of value is contained within the frame, yet to improve it, we seek expert opinion. The definition of "expert" depends on that definition of value, though, so we run into two issues: what if that value isn't actually "worth it"? what if the way that we define what an "expert" in an area is flawed?

With an extrinsic perception, these issues can rise to consciousness when we become aware that frames we tie ourselves to go against each other. The dilemma looks like an issue of what allegiance is more important:

> Do I take this job that pays less but that will allow me to spend more time with my family, or do I stay in this job that is farther but where I can climb more quickly? In this case, I will seek the advice of people in the profession I'm in, see how my spouse feels about the distance, etc. Yet, if I were to justify with an extrinsic perception why spending more time with my family is important, I would probably fall into a *collapsed belief* [2]: "spending time with family is important because if I don't spend time with family, I won't be there for them".

Being there for my family is spending time with them; instead of justifying the term, I redefined it.

Difference in terminology:
Kegan's work can been superficially misunderstood as "socialised people seek integration within society, self-authoring people seek independence", which sees developmental work in terms of personality. To make sure the discussion is framed in terms of the growth in mental complexity, and to point towards the failure of the extrinsic perception to reflect on how processes serve a certain value, we'll use "extrinsic" for the socialised mind. Likewise, we will use "intrinsic perception" to refer to self-authorship, because of its ability to see *into* a process and understand how it serves a certain purpose.

2.5.5 *Self-authoring/Intrinsic perception*

Reflection intrinsically reaches value and the processes which *carry* it [10]. Taking the previous example intrinsically lets me contextualise frames to my situation. I would say something like:

> I felt like my partner and I have been growing apart recently, and even though I took this job to ensure a stable mortgage payment, I'm realising the costs of financial security.

This quote alone wouldn't indicate an intrinsic perception, but it doesn't rule it out either[15]. One would have to ask questions such as "how do you know you and your partner are growing apart?", "what is most important about having a stable mortgage payment?", "what changed that led you to realise the costs of financial security?" to understand to what degree I'm making sense of this situation in terms my own experiences (versus using an already available frame)[16].

[15] The willingness to question the value inherent in a previous decision (especially career) would indicate some sort of intrinsic perception. Its prevalence is then queried with further structural questions.

[16] Can you imagine extrinsic answers for these follow-up answers? How about intrinsic answers?

Using my own experiences actually shows a dimensional difference in thinking. Being able to justify the reasons why I ascribe to a certain belief means that: . Additionally,

1. My definition of value is not dependent on the frame it was sourced from—instead, it is built from the context of the whole self.

2. Instead of comparing two frames together as package deals, I can compare reasons across my meaning-making and find inconsistencies I wouldn't have found when restricted to a single frame (with an extrinsic perception).

When we've practiced our intrinsic perception to the point of intuition, the above two features lead to an *internal consistency* [9]. There's a single identity (or belief system) that generates meaning across frames. The belief system has a certain purpose, and can construct new models that work towards that purpose through reflection.

2.5.6 *Self-transforming perception*

Self-transforming reflection is on the meaning-making of values itself. This perception is the most elusive of all, and given that no interviewee showed evidence of its usage, we won't be spending too much time on it.

Though the intrinsic perception is consistent across the contexts the self can be in, there is still the assumption that projecting a belief system onto the world makes sense. The self-transforming perception develops as one sees the limits of using a single belief system to assess value from. Every self-transforming experience can lead to

a change in meaning-making, because the object of reflection—the Play-Doh we can shape—is meaning-making itself [9]. As we gain consciousness in the dynamic nature of our meaning-making, it is more likely we will feel that ascribing to its definition of truth is limited because the act of defining is a function of our experiences. In that perception, our beliefs and drives are co-created. The environment is as much a part of my decision-making as my "own" thinking is. [33] uses the term "inter-independent" to refer to the self-concept in the self-transforming perception. I can have a meaning-making, but I am aware that meaning-making is the result of a lifetime of experiences, and not an independent construction of the self.

Perception	**Concepts we are subjected to**	**Objects of reflection**
Extrinsic *Value is frame-dependent*	Simple abstractions (*particular values, beliefs, ideals*) Subjective feelings, reading inner states (*understanding other people's construction of needs, dispositions, and preferences*), self-consciousness	Concrete actualities Simple needs Enduring dispositions Preferences
Intrinsic *Value is identity-dependent*	Abstract system (*a whole framework, ideology, value system*) Self-authorship, self-regulation (*self as owner and creator of inner states*)	Simple abstractions Subjective feelings, reading inner states, self-consciousness
Self-transforming *Several possible definitions of value*	Dialectical relationships between systems Interpenetration of selves, multiple selves, self-transformation	Abstract system Self-authorship, self-regulation, identity, self-formation

Table 2.1: Conceptualisable structures under increasingly complex perceptions (adapted from [9, 17])

2.5.7 *Understanding the influence of assumptions*

Kegan and Lahey's [9] attempt to scale growth resulted in the immunity-to-change process, so understanding it in light of knowing the perceptions can help understand the struggles that the entrepreneurs

may be going through.

For the person engaging in the process, the goal is to re-evaluate on what bases he/she made sense of their own values. The developmental goals are supposed to be strongly desired, which means that achieving them holds some sort of strong meaning that feels unattainable right now.

The assumptions uncovered may put into question whether that desired result is even in sync with the person's concept of fulfilment[17]. When *subjected* to that concept, its justification is not based on personal experience, and is therefore unavailable for reflection. When that concept is *object*, it is connected to the rest of our meaning-making, and we can therefore explain it. Since the risks are tied to what we consider as unknown, the structures of the fears follow the overall perception practice.

[17] Which also means the concept of fulfilment becomes more nuanced

Establishing a map of the concepts that we are subjected to and what we treat as object is the purpose of the subject-object interview, this thesis' methodology for understanding entrepreneurial meaning-making.

2.6 *Querying for meaning-making*

2.6.1 *The Subject-Object interview*

[2] (original version in 1988) describe and train the reader to perform the subject-object interview (SOI), CDT's empirical tool for analysing a person's meaning-making practise. The SOI is a dialectical tool, and is akin to the adult version of the Piaget conservation task, but for adults: we seek to find inconsistencies in the person's meaning-making.

The SOI is very free-form. A few prompts are given to the interviewee to elicit past experiences that have a strong tie to the self[18], and after some time thinking about which ones feel the most salient, describes the content of the experience to the interviewer (me).

Using that content, I then hone in on possible assumptions about reality. A simple one to look out for is an equivalence, or what [22] calls an "equal". Another one is a constraint, i.e. an assumption about something that is required, or that isn't possible. I then ask questions meant to explain how the person constructed that belief. Constructed beliefs often are much more simply explained than they are justified, so the interviewer has to show *edges* of thinking, where the justification either isn't known or is a definition[19], by successively asking how and why those concepts were constructed.

Because of the interconnected nature of meaning-making, the interviewer has to make choices regarding what concepts to ask about,

Examples of equals:

Honesty=dislike: "If I am too honest with people who don't know me, they will not like me".

Betrayal=Not a friend: "He betrayed me, and a friend who betrays me isn't a friend"

Expansion=Lower quality: "I think my CEO's decision to expand is too early on. It may force us to provide a subpar quality to our current clients"

[18] The eight prompts I used are: Angry, Anxious/Nervous, Success, Strong stand/Conviction, Sad, Torn, Moved/Touched, Lost something, Change

[19] such as the ones given in 2.5.4

which (in my experience) is honed largely with practice. An insightful choice of questions can lead the interviewee him/herself to start questioning beliefs[20]. The subject-object interview has therefore been adapted as a coaching method, the Growth Edge coaching method, with measurable results [34].

Once an interview is done, its transcript is analysed for structure, and an overall score is given. The score, the distribution of which is given in Table 2.2, is based on rejecting the hypotheses that the person is making sense with either of the surrounding substages.

[20] Because they have been questioned once, the interviewee practised going from implicit assumption to explicit assumption during the answer.

Table 2.2: Substage explanation. The overall scores are based on a holistic understanding of the SOI transcript. *X* and *Y* are perceptions.

X	Perception X is intuitive
X(Y)	Perception X is mostly used, with a beginning of Y (a *whisper* in Jennifer Garvery Berger's words).
X/Y	Both X and Y are used, but X is more prevalent
Y/X	Same as X/Y, except Y is prevalent
Y(X)	Y is the primary perception used, with some areas still seen under X
Y	Perception Y is intuitive

2.6.2 *Querying for the meaning of entrepreneurship*

The SOI process allows to draw a cartography of people's assumptions as it relates to their practise in reflecting more complexly. In comparison to other developmental metrics ([35]), the SOI allows for individual meaning-making analyses, which results in "rich and nuanced" data ([36]). Works that use the SOI can use the score explicitly to provide insights on educational practices ([37]) or be used as a qualitative inquiry method ([38]).

The approach taken in this thesis is the latter one. The SOI methodology allows for people to explain *why* their aspirations are theirs, and when seen across nineteen people, both the similarities and the differences enable a much more *real* account of people's aspirations[21].

The inquiry I set to delve into was to see the influence of the extrinsic and intrinsic perception on the entrepreneurial experience. As Table 2.1 suggests, an intrinsic perception is required to infer inner states from people's stated preferences, which is quite important to getting clients if one seeks to create a new company. Most of all, I was interested in values and ideals. What are entrepreneurs' extrinsic values? Intrinsic values? How do they relate across selves?

[21] For example, a quantitative survey might ask how much "independence" justifies taking on entrepreneurship. Independence from what? What for? In the SOI, there is no assumption about possible concepts—the interviewee states them—and the answer isn't a number but a meaning-making that is unique to the person.

3 Meaning-making and entrepreneurship

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Remember the restaurant example in the beginning of Chapter 2 on page 7. In one case, our model for defining taste didn't have a structure for understanding why the food was tasty, whereas in the other case, we had a model that we could update and grow as a result of a new experience. Would a subject-object interviewer score that bit as intrinsic?

No, the interviewer wouldn't. Though the second situation involves a much more complex understanding of taste, all the knowledge necessary to model it is already present within society. The frame of a skillful taster and cook doesn't require one to create his/her own models for supporting the purpose of e.g. having unique gastronomic experiences. The intrinsic perception is the ability *to come up with the models*, not *having* very complex ones.

Let's take the example a step further:

> Say you want to open your own restaurant. Even if you didn't know anything about cooking, you could learn that—or, worst case, hire a chef. But if the type of restaurant you're opening is the first in the area, you now have questions available for you to reflect on, such as: What are people's taste profiles? What price range should I price it at?

With increasing novelty comes increasingly complex challenges. Add in robot chefs, for example, and you'd have to deal with a whole manufacturing process to get your restaurant up and going—besides all the challenges that arise from connecting the restaurant industry to robotics that few people have had to face before, and whose solutions are therefore hard to find without coming up with them—a deeply intrinsic ability. In the example above, people who rotely apply a learnt model for creating a restaurant might not ask themselves these questions, and therefore lose out by assigning their failures to misfortune rather than specific skills, thereby preventing reflection and growth.

This chapter explores the influence of the intrinsic perception on entrepreneurship and social change, by looking at entrepreneurs as agents of change in Section 3.1, how the intrinsic perception influences the realm of what opportunities someone can perceive in Section 3.2, and by looking at how leadership defines the types of behaviours required to handle the complexity of entrepreneurship in Section 3.3.

3.1 *Entrepreneurs as the agents of meaning*

Our external environment provides us with pre-bundled organising principles. The laws seen by the instrumental perception and the norms seen by the extrinsic perception are examples of those packaged concepts. They allow us to navigate in a social world by creating a shared reality [21].

Those pre-existing concepts didn't always exist. They are the result of the interactions over time between the meaning-making of individual organisms and the environments in which they apply that meaning-making. Schumpeter's economic theory [39] assigns to entrepreneurs the role of carrying those new concepts to the environment (or context) of the economy, by the creative destruction of old concepts.

The assumptions behind the carrying of the creative destruction determine whether the company provides new meaning or not. If the assumptions are shared with the context, then little in that context is questioned, and therefore 'destroyed'. The creativity has to come from somewhere else, then.

The double-loop learning explained in 2.3.2 is actually incomplete, according to [40]. The concept of "triple-loop learning" brings to light the place where assumptions come from: the context in which our actions are embedded in. We may have reflected on whether we are doing the right things (a double-loop reflection), but is that definition of "right" actually relevant? Such a question is a triple-loop behaviour, and reflecting on it lets us see how the context came to be. We can thus practise connecting the various concepts of contexts we hold together into novel contexts.

3.1.1 *Contexts: the places where meaning is embedded*

Contexts as shared concepts In the remainder of this thesis, *contexts* refer to the environments, real or perceived, that we can get meaning from and provide meaning to—as such, they embed *shared concepts*. They are organising principles that extend to real life, shaped by and shaping our experiences. They can have physical or virtual *supports for meaning* that act as federating entities for the contexts[1].

[1] The word "MIT" and the physical institution are two examples of those supports for meaning for MIT's context

Contexts are co-created by multiple entities' meaning-making, and as such are combination of meanings that interact dynamically with each member's meaning-making. Moreover, their shared nature allows them to also organise the physical world. The shared concept of a country can, for example, lead to physical borders. As such, each of us holds contexts partially, and we have to intuit a concept using that information. Because that intuition is dependent on a person's

perception, the meaning for context can vary greatly between people.

Cultures are examples of such contexts, whose sources of meaning span generations [21]. Organisations are similarly structured, and even assign to different people their roles in managing the shared concept of the organisation. Just like the concepts we have in our brain, contexts are deeply interconnected with each other. Some, like a friendship, can include as few as two people and still be extremely connected to other contexts, in this case other friendships. A family lives within the streams of all the cultures and subcultures its members identify with. An organisation is nested within its economic context, and more widely, with the contexts of everyone that interacts with it in some way. We'll also treat the self as a context supporting the meanings we make—our past experiences included in the mix. The context of the self influences other contexts as well: when other people get meaning from you, they get meaning from your self's context.

Interacting with the context Our collective relationships with contexts determine its shape. Musicians evolve the meaning of the styles they play; Scientific discoveries change the body of knowledge of science as a whole, and their discipline more directly; companies thrive or falter at the inlensfulness of its members.

Often, the context embeds the frames through which we interact with it. Company executives shape their organisations much more explicitly than their employees. Parents have a much more prominent say in defining family standards than their children.

Contexts can have one or many *purposes*, explicit or not, and *principles* about the way to arrive at it, shared amongst the people who perceive it (terminology from [41].)

Context development Contexts get new meaning through the relationships they have with each other, facilitated through people's meaning-making. As such, from the concept of single- versus triple-loop learning, development happens through the interactions between contexts, and not by the context interacting with itself[2].

What is meant by a context *interacting with itself* is the case in which the relationships between the context and the people carrying it follow the principles established within the context. The purpose is set, and the frame through which that purpose is fulfilled exists in the context, "outside" of the meaning-making of the person executing that mode (i.e. extrinsically). Similarly to how downloading means using past patterns to respond to a new situation, a context interacting with itself downloads its past structure with no reflection on the embedded principles and their viability. In terms of assumptions,

[2] Given their interconnected nature, one could argue that a context interacting with itself is still interacting with other contexts, albeit unconsciously.

the people engaged in the meaning-making of the context engage in single-loop learning, carrying with them the assumptions of the frame they are applying—the principles are assumed to be good in this perception.

Just like the development of meaning-making, developing the context goes through a cyclical process of being aware of assumptions, reflecting on them, and applying the conclusions of that reflection onto it. Doing so, we share a meaning that was not expected by the target context, because our reflection can potentially involve other contexts in our meaning-making.

Nested contexts The relationships between contexts are similar to people-context interactions. Companies interact with markets, for example, and the frame that a company uses to carry its meaning onto the market can similarly be either directly taken from the market or informed by other contexts. Contexts can be *nested*, in a way that is conceptually similar to abstraction.

3.1.2 Connective concepts

Let's now turn our attention to the way that contexts get connected together and developed.

The various contexts that we embed ourselves in overall determine the shape of our experience. Moreover, contexts embed all the meanings that people have built over time (sometimes from a very, very long time ago, like with our families). The meanings available to us are the combination of every meaning that has been made available and carried over to today[3].

[3] Some meanings are very embedded in us today. You're probably reading this text in your head, but it's possible people stopped reading out loud only when newspapers appeared [42].

The light bulb was revolutionary at its time, and lastingly changed our lifestyles. The work to commercialise its first iteration was grueling, but its availability expanded our horizons. Moreover, it provided society with a model for controlling the lighting level for an environment. Once that idea was accepted, there was a functional model for controlling a light (a purpose) through the heating of a tungsten filament (a principle).

But the light bulb wouldn't have been done without advances in the various elements needed to create a lightbulb. First, we had to know about black-body radiation. It also relied on our ability to mine tungsten and make it into filaments. It couldn't work without a reliable electric grid to back it up and an industrial manufacturing system to produce it at scale. Each of the elements involved carried principles and purposes that could be recombined together into a lightbulb.

The lighting advances that came after that may have used com-

pletely different principles. The LED, for example, relies on electroluminescence, not black-body radiation. Just like the lightbulb, all those advances couldn't have been done without the presence of other advances ready to be recombined into the advancement.

This gradual view on invention, as explained in [41], means that, just like the nested nature of concepts and contexts, new concepts are built upon all the concepts that came before it.

Breakthrough types of concepts, therefore, are not sudden bursts of inlens, but rather, the connection of a purpose with a principle whose assumptions are radically different from what the context assumed about the connection. The connection enables contexts with radically different frames on the world to intertwine their meanings. With an existing organising principle that ties those contexts together, other concepts can be deduced from it. We'll describe these organising principles "connective concepts".

Connective concepts are, at first, quite blurry. To go from black-body radiation to the lightbulb, a conscious work of codifying the connective concept had to be made so that a working version could be sold. The process of codification makes the tacit knowledge (what we are unconsciously competent at) explicit, and therefore communicatable [43]. That process is similar to reflection [18]. We have a working understanding of the connective concept, apply it onto the context, and reflect on that experience to become more competent at making meaning of the connective concept. Through connective concepts, we mesh the frames between contexts into new ones

3.1.3 Innovation as the adaptation of a social context to a connective concept

To connect the context of a startup with the socio-economic one, a similar but much more probabilistic process is at play. Indeed, social contexts operate much more complexly than technological ones. A tungsten filament will always have the same reaction to heat, but people's preferences vary widely.

Innovation, as opposed to invention, entails the availability of the support for meaning within a social context. OECD [44] defines an innovation as:

> An innovation is a new or improved product or process (or combination thereof) that differs significantly from the unit's previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process).

The Oslo Manual uses the term "unit" to describe the actor of the innovation. "It refers to any institutional unit in any sector, including households and their individual members". It is therefore conceptu-

ally similar to the notion of "context" that is used here.

Considering the "new or improved product or process" as the result of a fully codified connective concept, there still is no guarantee that the novelty/improvement is present within the social context for a wider population to benefit from it.

A company could simply not have modes that allow for anyone to change their organisational structure, disallowing the employees to share connective concepts. In fact, the absence of that possibility is reflected in how people interpret the frame of their job, and the normalisation of it can in turn elicit connectivity by employees.

A startup owner has a twofold task when creating the context of a company[4]:

1. The "principle" of the company is centered around the connective concept that is believed to give the eventual startup a competitive advantage. The startup founders have to federate people around that goal. The more connective the concept is, the fewer the frames to base the valuation of that connective concept from.

2. The "purpose" of the company is to carry the meaning of the connective concept onto the societal context. Because there are probably few frames that can be directly applied to carry that purpose, they have to be reflected upon to connect it to the targeted social context.

[4] In the case of many of the interviewees, their first one, meaning they don't have prior exposure to a model of a company creator

The extrinsic perception does not have a consistent meaning of value across frames and cannot build its own frames. It therefore has to validate the worth of an idea using one of those externally built frames. Yet, the more connective the concept, the fewer the externally built frames—they still have to be created. Thus, the less adept entrepreneurs are at the intrinsic perception, the less they can identify and reflect on framing assumptions, and the less they can dynamically define frames from previous ones. These issues are also present for executives at established companies, but their issues are more centered around their personal adaptation to job demands and to the foresight required in adapting their company to changing contexts ([45])

3.2 *The intrinsic perception: a theory for bringing meaning to the world*

[46] provide a metaphor to explain the difference between a small to medium-enterprise (SME), owned by Steve and an innovation-driven enterprise (IDE), owned by Karen. The SME, a pizza shop in that example, didn't require Steve to learn much about himself

in the process. His challenges were all technical: he had to find out what suppliers are certified organic, find a nice place to set up shop, etc. Karen, on the other hand, had to adapt to her new situation: she couldn't the "chemical engineer" anymore—she had to also learn dealing with investors, clients, employees, etc, understand the administrative and legal intricacies of building a startup, turn her surface chemistry patent into a commercially viable product... all skills that were not easily learnable, because her startup is based on a patent, which means it doesn't have an equivalent in the business yet.

This section explores how the meaning-making of these two entrepreneurs differs. While Steve learnt the extrinsic frame of the pizza shop owner, Karen had to create her own frame of "Karen the surface chemistry technology entrepreneur".

3.2.1 Frames and models

The adult development and coaching literature generally seems to agree that more complex job demands beget more complex perceptions [45]. Nevertheless, assessing the mental demands of a particular organisational context remains difficult, even if the development of leaders is clearly correlated with superior performance [47].

The frames we come to adopt, as the fruit of our meaning-making's connective process, are a product of all our experiences and beliefs growing up[5]. Their applicability to a certain situation is therefore hard to generalise. Sometimes, just looking a certain way is enough to be challenged to find our own frames. Some research suggests that prior oppression and marginalisation could explain the appearance of an intrinsic perception in students [38, 50]. Likewise, if we were taught to act the exact way that is required to be a successful enough manager, there's no need to ever reflect on the frame we adopted. In fact, in Tom O'Brien's dissertation, many people going through the Harvard Business School leadership class were found to operate mostly under the extrinsic frame[6] [37]. There might be a selection bias, therefore, in that the people requesting developmental consulting are the most likely to feel a mismatch between their current perception and the one they feel would be needed to fulfil their jobs, either from themselves or from other elements in their companies [45].

In other cultures or personal backgrounds, integrating the idea of a leader that listens to employees for advice may be challenging enough to open the person to an intrinsic perception [9]. Indeed, a frame to view leadership under may be to be the one having "all the answers". In that perception, a leader has results to bring, and must orchestrate behaviours in his/her team to achieve that result.

[5] The literature on framing is extensive and spans contexts going from cognitive representations ([11]) to institutions and mass media—see [48] for a discussion on frame analysis. A summary of the ways the term "frame" has been used in the past can be found in [49].

[6] Another reminder that complexity isn't a measure of intelligence. All adult perceptions provide an infinite number of possible concepts

That frame, often referred to as "transactional leadership" in the leadership literature, is often linked with an extrinsic perception [33].

3.2.2 *Leaving the extrinsic perception*

Engaging ourselves in the learning of the intrinsic perception comes with hard sacrifices. Holding a meaning for value across frames goes through experiencing and accepting all the ways value is not meaningful to us, and how our choices went counter that budding meaning. Until satisfactory answers are found, one has to accept the uncertainty of not having a strong conception of reality to rely on. Most of all, the intrinsic perception is built through the reflection on the assumptions implicit in the frames we have adopted, which can take years to reflect on.

[38] delineates three elements encountered in the building of the intrinsic perception:

Trusting the internal voice This building block enables us to separate what happens to us from our reactions. As we build trust in our internal voice across the contexts we can be in, we gain awareness in what we control independently of what is assumed by the frames of the contexts. It is structurally similar to conscious incompetence.

Building an internal foundation Once we gain confidence in our ability to react to the world, we set out to build our philosophy, or internal foundation, for ourselves. What do we stand for? How do we justify our decisions? The internal foundation, allows us to answer these questions. It is structurally equivalent to conscious competence.

Securing internal commitments Though the internal foundation provides potential meaning for action, it is only through the securing of internal commitments that the intrinsic perception is fully developed. By confronting our internal foundation with the results of our actions, we can reflect on it and use it more intuitively. What we find to be the most meaningful—what feels "right" to dedicate ourselves to—form the basis of our decisionmaking. It is structurally equivalent to unconscious competence.

3.2.3 *Accepting uncertainty*

The practice of the intrinsic perception constantly engages the self, and therefore its survival. Uncertainty can be hard, especially when the self is what we are uncertain about. Self-preservation kicks in: the model that we have used to interact with the world, which we

were fused with to a certain extent with the extrinsic perception, is put into question. Meaningful alternatives may simply be unconceptualisable at that phase, because they would require an intrinsic perception to be perceived, and many assumptions to be uncovered before that. [38] uses the term "shadow lands" to describe the moments when we experience doubts about ourselves:

> [The shadow lands] were times of confusion, ambiguity, fear, and even despair as individuals struggled to analyze and reconstruct some aspect of their beliefs, identity, or relationships in various contexts. As Dawn noted, it was not possible to be "in the light" all the time. By reflecting on these challenging experiences, participants emerged from the shadow lands with a clearer vision of themselves and greater confidence in their ability to internally author their lives. Their personal reflection skills and the extent to which they had good support systems mediated the intensity and duration of excursions into the shadow lands.

The support systems provide a sense of safety—if the worst that would happen is bearable, our senses of self-preservation will not be impassable barriers to our development (the *intensity* part)[7]. The support systems also provide help in receiving useful advice, which helps make the practise of the intrinsic perception more efficient (the *duration* part)[8].

[7] The usefulness of a safe playground to test ideas at first is a main driver behind MIT Sandbox's existence.

[8] as described in 2.3.3

3.3 *Connective entrepreneurship*

The challenges inherent to both Steve and Karen mean that their leadership style has to be different. While Steve can be transactional[9], Karen has to figure out the processes through which her mission will get achieved, such as her business model, and often change her beliefs as new information comes in. According to [51]:

[9] That is, until some change in a context that his leadership style is strongly connected to forces him to question certain assumptions about himself

> Leadership is realised in the process whereby one or more individuals succeeds in attempting to frame and define the reality of others.

Leaders, under this perception, are the agents through which meaning is shared in one or more contexts. The various frames in which an entrepreneur can reflect on defining the reality of others is discussed in 3.3.1. The difficulty in creating frames that support the purpose of the company, when the company carries a connective concept, is discussed in 3.3.2. Finally, the position of the self as the core element in carrying that enterprise is tackled in 3.3.3.

3.3.1 Framing entrepreneurship

makes a parallel between the types of entrepreneurs delineated in [52] and levels of development. Three types of entrepreneurs are delineated:

Self-employed self-employed people must create a system to ensure their financial viability, but generally use models for economic returns already present within their socio-economic context. As such, their main challenge is to adapt their lifestyles to the requirements of the self-employed frame they seek to adhere to in order to succeed at their venture.

Imitators imitator entrepreneurs are here defined as the people who seek to adapt a (source) concept already present in a (source) context to a new (target) context. Because the target context does not have prior exposure to that concept, the work needed to adapt the source concept to the target context requires a fair deal of reflection to actualise. Nevertheless, there is extrinsic evidence for the viability of the source concept, and therefore some pre-existing body of knowledge to base the adaptation from.

Innovators innovator-type entrepreneurs have to adapt a concept to a context without a direct example of a similar connective concept having been introduced somewhere else. Therefore, they have to build their own model for adapting the connective concept to the socio-economic context they choose. Moreover, the connective potential embedded in the concept they wish to introduce means they don't have a context from which to source a frame for their company structure. They have to reflect it instead. The absence of similar enough models[10] means that the confidence in the worth of pursuing the venture is entirely built on the person's own, intrinsic, process for giving value to the venture idea. Connective concepts that require such an intrinsic process are called "radically connective".

[10] Models being similar to each other across contexts means that they must have structurally equivalent prerequisites to be considered valid.

Because these are concepts and refer to career aspirations, they can be interpreted as frames. Nevertheless, the demand put upon by any of these types can be very complex[11]. The imitators and innovators, engage in a process that requires some synthesis across frames: they involve carrying a connective concept, proven in other contexts or not, to a social context that hasn't integrated it yet.

[11] Even a person seeking to adhere to an already existing frame for self-employment in the context may face adaptive challenges as they confront the frames they see themselves as with the ones that self-employment embeds.

3.3.2 *Connectivity is an uncertain process*

We only get to experience our own reality, and how we interpret it is therefore ultimately a fruit of our own meaning-making. As people seek to carry a connective concept to a social context, they have to connect with people's inner states[12]. The extrinsic perception is blind to inner states—objects of reflection span only to needs and preferences, so an extrinsic perception will have to rely on a previously

[12] the process through which preferences are justified, according to Table 2.1

existing model and receive external feedback to judge how well the model is applied and whether it brings value to the social context.

Both the principles and the purpose of a connective startup are subjected to change through the nesting process of the startup. As [53] describe, some entrepreneurship research contends that entrepreneurs create opportunities, they may not necessarily discover them—the mountain is devised as it is climbed. The lack of pre-existing frames for the connective concept means that there a new interpretation of reality must be integrated to find a product and a market that will fit together.

It gets even more fuzzy than that. Connective concepts were previously defined with a fixed principle and purpose, but in as they get created, neither the principle nor the process nor the contexts are set yet. Often, they change as the entrepreneurial process unfolds more assumptions present in the current conceptualisation of the startup.

The layers of embedding Table 3.1 provides a nested representation of the contexts that are relevant to a company's success. Non-connective concepts already can be carried through a business model that is present in the context, therefore the relationships between the business model and the above layers are implicit. Moreover, the layers that are below the business model are subjected to the idea of a correct behaviour embedded in the model. Therefore, a leader who seeks to implement that model can be transactional because the rules for the transactions are known and set. Connective concepts cannot afford such a simple model, because it does not exist for it. On top of having to create that layer (which is the result of individual constructs), it has to adapt as the other layers are discovered further, which explains Baron's idea of entrepreneurship as opportunity discovery. Because the base layer is the self, and because career is often linked with economic outcomes, which are quite important to sustain the self, self-preservation can play a role in the act of entrepreneurship.

Table 3.1: Contextual layers of the small firm (from [54]). Meaning-making is the base context from which all other layers are defined.

	Macro-economy
1	Networks/Clusters/Micro-economies
2	Business-to-business relationships
3	Business model (concept/strategy/vision)
4	Internal 'functional' activities/relationships
5	Individual capabilities/motivations
6	Individual cognitions/mental models/constructs/values
	Physiology, etc.

Entrepreneurship and self-preservation Entrepreneurs, like all other humans, must manage their self-preservation as they pursue their aspirations. Because of the added uncertainty coming from not relying on contextually validated frames and the constant need to expand on the connective concept, the shadow lands are always around the corner.

While we look at entrepreneurs generally as determined risk-takers (e.g. in [3]), maybe the external opinion that the person is determined and that some risk was taken comes from the perspective of already available frames. Rather, the intrinsic perception would

lead the entrepreneur to conceptualise the value of the startup from his/her own system for determining value. As such, the confidence that entrepreneurs rely on to de-risk their ventures may be simply based on a different set of assumptions than what the context embeds. When entrepreneurs are confident in their ability to respond to situations and emotions (which was previously referred to as "Trusting the inner voice"), they can form models to deal with the uncertainty of a connective concept more readily.

As is seen in Chapter 4, the ability to perceive value across frames, in practice, means that an intuitively intrinsic perceiver will see the value of every one of their actions, because they live true to their values. Whatever connective concept they have is not aimed at capturing an external value that is theorised as essential to the entrepreneur's happiness. Rather, the connective concept is a *consequence* of the entreprenueur's awareness of their purpose and their acting on it.

3.3.3 Connective concepts start from the self

Setting aside the entrepreneurs who reuse available models to go about their ventures, those who seek to carry connective concepts must have a justification for why they are doing so. Otherwise, there would be no basis for orienting their decisions towards the connective concept.

The self is deeply interconnected to the carrying of the connective concept, because it is involved in our interactions with all the stakeholders that influence the creation of the startup. Therefore, when carrying a connective concept, the contexts being connected include the self that connects the social contexts.

Unfortunately, in the extrinsic perception, a connective concept may be mistaken as a molding of the self and the company, meaning people will identify themselves with their companies, and their value with the company's success. The issue with this pattern of thought is that people who start entrepreneurship with a primarily extrinsic perception will likely be confronted either with the lack of a frame, or with their inaptitude to apply the frame they have adopted on the problem of their choosing.

On the flipside, in the intrinsic perception the reasons for going into entrepreneurship are plenty: finding a challenge, opening up opportunities, creating something that is new—whatever purpose transpires from being able to reflect on values. Because the meaning for value is unique to each person, they are difficult to translate into simple words. The reason sounds like a story with many justifications.

4 Exploring the reflections of MIT student entrepreneurs

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On page 22, the extrinsic perception was described as unable to answer whether the frames we use to make meaning carry a value definition that is "worth it", or whether the frame itself is "flawed". But in terms of *what*?

Maria Baxter-Magolda, in [38] uses the concept of an *internal voice* to explain this feeling of something being amiss. The realisation that the frames do not provide for an overall consistent meaning for value also supposes the existence of a place from which that value is constructed. The intrinsic perception, according to constructive-developmental theory, is that place.

What does this place look like? And what awaits entrepreneurs on the way to intuitively intrinsic perception? In opposition to stereotypes, entrepreneurs who perceive themselves intrinsically do not put much value on external definitions of success. Their basis for satisfaction is acting, every moment, in a way that is true to them—acting on purpose.

The external causes in the extrinsic perception—success, independence—become consequences of their convictions, but only when they have successfully mastered seeing their own intrinsic process of becoming.

To do so, they have to learn what is truth for them, what they value beyond what the external world gives value to. This learning process is challenging. In order to build a meaning for themselves, they have to let go of their frames for value and create their own, routinely traveling to the shadow lands in the process, without much support.

Their reflections dealing with this growth are explored in this chapter. In Section 4.1, we will explore why such exploratory research is needed, and how its methodology is built. In Section 4.2, a few of the concepts entrepreneurs grow through are laid out. The interviewees themselves then take the pen and tell their stories in Section 4.3, Section 4.4, and Section 4.5. Finally, a few of my own reflections on the excerpts are given in Section 4.6.

4.1 Methodology

4.1.1 Prior work

Traits and desires According to prominent meta-studies such as [3], successful entrepreneurs are distinguished by their "need for achievement, generalized self-efficacy, innovativeness, stress tolerance, need for autonomy, and proactive personality". Though these studies can help understand which of these traits are more important[1], it would be hard to imagine that a successful entrepreneur wouldn't be proactive or seek autonomy—those traits are conceptually part of the entrepreneur's frame. These study results sound like collapsed beliefs[2] applied on quantitative research.

The desire for distinctiveness[3], for example, can be explained very differently depending on the perception used. [52], argues that the identification of the entrepreneur to his/her venture is so strong, the emotion and relationship felt is akin to parents with their children. Indeed, [55] argues that career identity (the part of the identity that ties who we are to our jobs) is indeed more pronounced in entrepreneurs than in others. Yet, [56] argue that, while the need for distinctiveness can be a large driver for entrepreneurs, the ability to "compartmentalise" different identities can determine entrepreneurial success—which is a key feature of the intrinsic perception.

In line with [5] , entrepreneurship has been largely studied as a career choice (separating entrepreneurs from non-entrepreneurs, just like architects from non-architects), despite its nature as a process of creating a company, regardless of industry. Characteristics defined as part of "entrepreneurial motivations"[4] can then be seen as characteristics of the entrepreneurial *career*, not of the entrepreneur. This collapsed belief is reminiscent of the extrinsic identification of self to career[5].

Alternate theories When delving deeper into the literature, the implicit assumption that everyone has the same meaning-making structure causes researchers (and entrepreneurs alike) to apply their own meaning of key terms onto insights.

Alvarez and Barney, in [53], describe two alternative theories to conceptualise entrepreneurial action—*creation* and *discovery*:

Discovery "Opportunities exist, independent of entrepreneurs", and the entrepreneurs "differ in some important ways from nonentrepreneurs, *ex ante*". This behaviour is similar to the Expert mind ([47]), a structurally extrinsic type of mindset, in which knowledge exists and just needs to be discovered. A discovery entrepreneur,

[1] Their relative importance may be context-dependent. The study referenced found moderate correlation and heterogeneous results.

[2] See 2.5.4 on page 22

[3] i.e. to be differentiated from others

[4] **Entrepreneurial motivations** [5]**:**

- Need for achievement
- Locus of control
- Vision
- Desire for independence
- Passion
- Drive

[5] which can be exhausting for the entrepreneurs who do not make that distinction. As will be seen later, it is hard to sustain an image of relentlessness

for example, would elaborate a full business plan early on in the process.

Creation "Opportunities do not exist independent of entrepreneurs", and the entrepreneurs "may or may not differ from nonentrepreneurs, *ex ante*", but "differences may emerge, *ex post*". Rather than the risk a discovery entrepreneur has to deal with, a creation entrepreneur deals with uncertainty, meaning the inference of decisions from incomplete information. A creation entrepreneur would not care much about an elaborate business plan because its shape changes as the process goes on.

Though Alvarez and Barney discuss these theories as alternate, they look structurally different from a constructive-developmental perspective. Discovery would be an extrinsic value process, because the way to create value exists outside of the self. Creation would be an intrinsic value process, because the idea that is being created comes from the mind of the entrepreneur.

Both of those theories are teleological—they assume that people act out of a reasoning that people engage in the actions they believe facilitate the "accomplishment of one's purposes". CDT tells us that the construction of one's purposes is frame-dependent extrinsically and holistic intrinsically. Discovery and creation might not be competing as much as they complement each other—they apply to two perceptions of the entrepreneurial process.

4.1.2 Structure of inquiry

The SOI as a qualitative inquiry Rather than categorising the framing of entrepreneurial actions, and therefore seeing how people accomplish their purposes, studying their meaning-making directly explains the construction of that purpose. Identity, though often socially constructed, is in the end the deepest expression of the self. [57] define the entrepreneurial identity as:

> The "constellation of claims [...] that gives meaning to 'who we are' and 'what we do'"

The uniqueness of each meaning-making results in a different constellation for every person, which qualitative inquiry can explain.

The subject-object interview can be used with set hypotheses to test, e.g. to find the meaning-making practise of leaders ([58]) or the effectiveness of leadership programmes ([37, 36]), but can also be much more exploratory in its interpretation (e.g. [59], which explores the meaning-making of people who use the self-transforming perception to a certain extent). The approach taken by this study is very strongly oriented towards the latter.

In that form, the SOI becomes a grounded theory methodology [60]. In contrast to the hypothetico-deductive approach, hypotheses are formed after the data is collected. It is as if the people in the interview wrote their own study questions. The flipside of this strength is that few definite correlations can be made with the study alone. For example, the consequences of the "schism" I found between entrepreneurs who believed in their abilities and those who did not cannot be generalised yet[6], but it can inform the design of subsequent mixed-methods or quantitative studies.

[6] Even within the cohort—not everyone talked about their entrepreneurial struggles, even if they possibly had them

Contribution **To the extent of my knowledge, there is no published study that uses the subject-object interview to query entrepreneurial meaning-making**—in fact, only [61] tie adult development to entrepreneurship through a theoretical model. In that paper, the authors go so far as saying that the relationship between self and entrepreneurial competencies is still largely unaddressed by the literature[7].

[7] That is worrying when we consider that all actions are decided by the self.

Caveats The trove of data I collected (nineteen entrepreneurs, over 30 hours of interviews) is too large to explain comprehensively within the scope of this study. Moreover, the interconnected nature of meaning-making creates a complex web of interactions between concepts that can be complex to restitute linearly. The interpretation of the results is therefore biased through my own meaning-making.

The SOI is also a difficult process and requires a certification process, which I am in the process of completing. Seven out of the nineteen interviews were checked by a certified scorer, and only one fell outside of the range of reliability[8]. Nevertheless, the overall scores are not discussed in this study. Instead, an approach closer in spirit to the Growth Edge coaching [22] method is used[9]. Thematically close excerpts are put next to each other, and show the progressive unraveling of a specific concept. Examples of similar layouts include [38, 59].

[8] Which is defined as scoring an interview more than one substage away from the score we agree on after discussing our divergences.

[9] Growth Edge, which I am also in the process of completion for, uses the subject-object interview in coaching

External validity MIT students are *very* privileged in comparison to entrepreneurs in other settings. Issues like institutional corruption were not present in their discourse, except for Isabel, who gave mentioned administrative hurdles as an explanation of why entrepreneurship was so hard in her native country. The results, here, have to be interpreted in light of these factors. Because of their privileges, the reflections of entrepreneurs can show what barriers exist when very few of the extrinsic ones can be used as justifications. Moreover, the sample was gender-biased (15 men, 4 women, mirroring the gender distribution in MIT Sandbox). The nature of MIT Sandbox as a test-

ing ground for students interested in the startup route also skews the sample heavily towards nascent entrepreneurs. The nature of this study as an exploration, though, means that there is no claim for validity—the observations laid out here are instead pointers towards future research.

Procedure Members of MIT Sandbox[10] were asked to participate in a study to understand the correlations between personal development and the entrepreneurial journey, with a specific mention that the interview method could be helpful for their own self-exploration. Besides the procedure summarised in 2.6.1, the following questions were asked at the end of the interview. All of them were open-ended and could be used for further inquiry (including the demographic questions).

[10] https://sandbox.mit.edu/

1. What is your vision of success?
2. What challenges have been the most salient for you so far, and how have you adapted to them?
3. How did your entrepreneurial journey start?
4. At what stage of your startup are you?
5. Demographic questions: self-assigned gender, age, academic and professional life path (so far, and projected), geographical origin(s), and socio-economic background.

4.2 *Summary of observations*

The following observations, grounded in the interviews, are both analytical (their explanation relies on quotes) and synthetical (their layout comes from a holistic interpretation of my experiences administering the interviews, and are a selection of patterns from a much more complex source).

There are two layers to the presentation of the observations:

1. The nature of reflections that entrepreneurs are tackling (what concepts they are thinking about).
2. The unraveling of reflections that entrepreneurs use to tackle these concepts (how they make meaning of them).

Because the excerpts come from full interviews, and because concepts are fundamentally interconnected, the separation between the following sections is fluid. Many ideas will be echoed by others.

4.2.1 Layout

Purpose for the self A strong schism separates entrepreneurs: when entrepreneurs are confident in themselves, they see entrepreneurship as a *thrill to be living a meaningful life*. When they don't, it's a *necessity to find what a meaningful life is*. For the latter group, time is of the essence, and the greatest source of risk is wasting time by making the wrong choices. This shift in mindset can be seen in three major concepts:

Distinctiveness which is first seen as a **goal** (*If I'm like all others, I'm replaceable and therefore worthless*). As the reflection grows in complexity, distinctiveness becomes a **consequence** of an intrinsic value (*What truly matters is what's important to mes*).

Challenge They are first seen as impeding success, and a source of **exhaustion**, both for the constant need to adapt and the uncertainty regarding the results. Progressively, the comparison of current states to results faded away and challenges became an essential part of the entrepreneurial journey, for the **growth** it allows for.

Freedom First seen as an **independence from** some context (*I don't want to belong to this organisation*), then an **agency to** create the one in which we can build fulfilment (*I can ask my own questions, find my own answers, and learn about my truest self*).

Purpose beyond the self The intent behind legacy changes qualitatively depending on the perception. On the primarily extrinsic side, legacy is the way to know whether a life is meaningful, and the way to build legacy is through impact. On the primarily intrinsic side, impact is the consequence of applying one's values into the world, and legacy is the long-term cultural effect of that application, cementing how others remember us.

Legacy When value is extremely contained within the frame of entrepreneurship, a person's worth is equated to what they have done in their lives—at the threat of having had a "wasted" life. As the reflection complexifies, the goal to **be remembered** is actualised in people's **relationships**, realising that every interaction is a memory.

Impact At first, impact is the means to the ends of legacy, or the measure of a meaningful life—the bigger the impact, the more meaningful the life. As the reflection grows, the impact itself becomes the aim, and then becomes a consequence of one's actions. Its value moves from a question of **scale** (*the bigger the impact, the*

better) to a **personal meaning** (*the truer the impact is to my values, the better*).

Finding direction The primarily extrinsic perceptions will see value as something that other people confirm within them, and success is determined by other people's recognition of that value. Intrinsically, external opinions are ways of gathering feedback and information to refine understanding, and value is ensured from within—we only need our opinion to know whether what we are doing is meaningful.

External opinions The opinions of others first **validate** people's aspirations. The people involved can be as wide as the abstract "they" or "people", or as personal as family. The viability of the startups and the interviewees' worth as a leader could come from investors, employees, or cofounders. As the reflection grows and people's belief in their self-worth becomes more secure, value is *given* rather than *received*, and external opinion is used as **feedback**. Mentors and role models become less like images of perfection, and more like sources of inspiration.

Potential From the **hypothetical** (*The world would be so great if...*) to the **practical** (*This is how I am maximising* potential*)* entrepreneurs saw the maximisation of the universe's potential as their underlying metaphysical explanation of existence.

Success As the concept that provides a sense of direction, success moves from a **having/being** what we wish, to **doing** what we perceive as purposeful.

4.2.2 Cohort

By order of appearance in the results, these people are featured in the writeup (names anonymised to preserve privacy):

Neha After having founded an educational startup while in college, Neha worked for a bit in the professional world, and came back to Sloan to expand her career opportunities, and possibly launch her second venture as an extension of the first one.

Peter Peter also worked on a startup and in the professional world. His main dilemma is whether he now prefers the stability of a job or the thrill of another startup. He enjoys studying systems.

Ethan Having graduated from MIT, Ethan both pursues his doctorate in a health-related field and works on a startup (unrelated to health) that he believes will help him learn important life skills.

Michael Though not passionate about the field that his startup is in, he enjoys the team and the process of experimenting. Michael decided to pursue an entrepreneurial journey as a cofounder alongside his departure from his faith group. His startup is currently pre-series A.

Isabel Coming from an entrepreneurial family in Latin America, Isabel had her run at making her cosmetics company. Having come to the USA, she now fears the exhaustion the startup life brought her, so is taking time to design a career that is more in tune with her long-term happiness.

Flavio He worked at the banking sector for a while but found it deeply unsatisfying. He left that to work for a startup. Alongside his applying for MBAs, he realised that nothing separated him from the founders he would see, and decided to try to be a founder himself, fifteen months before the interview. He seeks to provide micro-lending to people in his native country, and he is at the prototype stage.

Rajae She never really saw herself as an entrepreneur either, but realises that her interest for communities and relational maturity may be best expressed through her own venture. The "therapy culture" that she got in college is uncommon in her racial community, and seeks to make it more normal for people from her group to talk about their emotions.

Abe Passionate about energy, Abe has a love of history and a Christian spirituality that he finds meaning and community in. Abe's startup currently has employees—he's been building it since he graduated almost two years ago.

Rasheed Rasheed made a construction startup before coming to MIT, and then carved his own position within a large construction company he worked for. After having created a product he saw potential in that company, he applied to MIT Sloan to get more exposure to entrepreneurial networks. He seeks to be an example for other people in his community to feel empowered in their identity.

Roy Roy has been working in a startup that seeks to find jobs for people without college degrees. He puts a lot of importance on relationships and personally seeks to be more present for the people he cares about.

Jay Jay comes from an entrepreneurial family, and was a design consultant before coming to MIT. His Sandbox startup is currently at the idea stage.

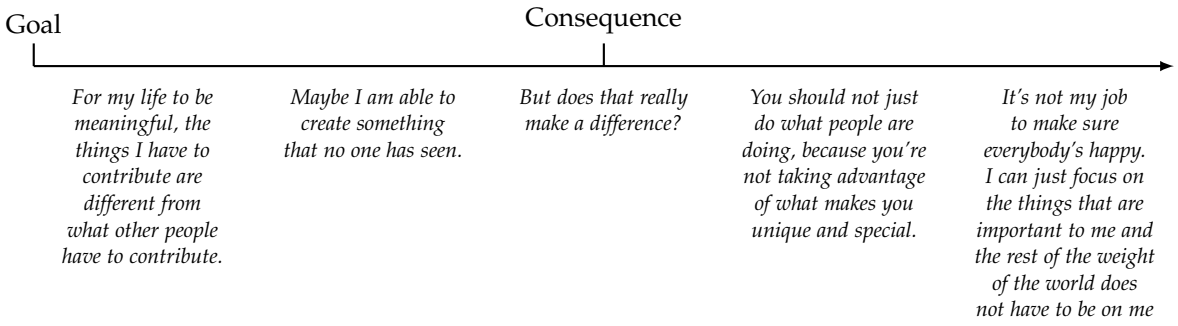
Ali Ali has worked at a large company in the past, and used his first leadership position to implement shared leadership practices drawn from his experience growing up in a country where, for him, hierarchy and prejudices about people's abilities brought forth distrust and self-defeating "reinforcing loops".

4.2.3 *Presentation*

- Each continuous quote block is from the same interview.
- Sidenotes include references to other concepts as well as additional analysis.
- The location of the ticks on the complexity timelines shown at the beginning of each subsection represent my own interpretation of the intrinsicness of each statement. The timelines are intended as visual aids only.
- When I (as the interviewer) ask questions, the text is italicised.

4.3 *Purpose for the self*

4.3.1 *Distinctiveness: the separation from social standards*



The value in distinctiveness is fundamentally extrinsic to a certain degree—being different is being different from *others*, who are fundamentally outside the self. Entrepreneurs who hold on to that distinctiveness at first can see it as their way of assessing that what they're doing is meaningful. Extrinsically, we tell ourselves we have value because it is different than others', with it we can only reassure ourselves of our value by seeing that we are different than the one in our context.

Because the internal voice starts out as a "whisper", when we are barely consciously incompetent at the intrinsic perception, it can manifest itself very much as a rejection of what is not valuable (the *separation* talked about in Section 2.5) before we can start being aware of what is actually unique about us. Distinctiveness may then

lose its appeal to the mostly intrinsic perception, because the actual value perceived takes a much greater and present importance—as we become intuitive in it, it becomes something that pervades our existence. It then becomes more puzzling why we would spend time seeking everyone to be helped when we have already so much we can give our attention to.

Goal At first, the value of a contribution is defined in terms of how unique it is *in comparison to others'*. On the flip side, feeling like what we do can be done by someone else is linked with feelings of meaninglessness:

> **Neha:** The feeling of being replaceable kind of sucks. You're like, Oh, if anybody else can do it, what is it that makes me special? Or why have I worked so hard? [Then] what you have to offer is not particularly special. And maybe that's true. Maybe. Maybe there's no real inherent value to what people have to offer. But I would like to believe for my life to be interesting and meaningful that the things I have to contribute are different from what other people have to contribute.
>
> *What's at stake with your contribution being different?*
>
> **Neha:** I think if it's not different then anybody else can do it. If it's not different you're cog in the machine and there are 800 other people who are going to do the same job and your life holds less value. And less meaning as a result. [...] It feels like a waste of time. It doesn't feel like a life worth living.

In the above excerpt, if what I'm doing is the same as everyone else's, then it doesn't hold much value. The model for determining self-worth is wholly in terms of what others are doing[11]. This feeling is especially true in organisations. The role-based structure can be very impersonal, whereas entrepreneurship can feel like an Indiana Jones adventure:

> **Peter:** It's hard, but sometimes you figure something out and it gets kind of exciting. I might be the only person in the world has seen this. Maybe I am able to create something that no one has seen. So having had that experience of, "wow, we've led the creation of a technology that the world has never seen before" and is the point then in making up my own vocabulary to document what I'm seeing on the edge of what's one part of, of, um, a field of research. It's pretty cool to be where we don't have words to describe what we're seeing and I'm seeing itself. I'll make my vocabulary[12].
>
> *What's the coolest part about that?*
>
> **Peter:** It's like being an explorer. It's as if we're out in the jungle and got the safari hat on and you're like, we just saw a new butterfly.
>
> *What does it tell you about yourself?*
>
> **Peter:** I guess a little bit of that, explorer slash cowboy... It's hard to be average. It's a lot less crowded when you're out on the edge of

[11] In the full interview, she talked at length about how her venture ideas could provide spaces for people to express themselves. Despite that, she didn't make it personal when asked about the her own value.

[12] **Legacy**: making the vocabulary forever cements my contribution to humanity

> something. The frontier. So there's more concern. Yeah. Stressful. Yes. It may or may not work, but there's a way that we can.
>
> *What makes it so important?*
>
> **Peter:** I think I don't want to keep regressing toward the mean, that's kind of boring. I think I need this to keep things a little bit spicy.

Peter above talks about the fun there is in finding something new. Yet, the value of the technology is in it being a discovery—and the image of the entrepreneur is akin to the explorer mapping uncharted lands. What the technology is isn't considered when reflecting on its value.

More nuance to the way that a value is distinctive is provided in the next excerpt. Ethan describes his shift away from "one-dimensional thinking" towards a more thoughtful and multifaceted approach to determining the value of a certain action:

> **Ethan:** I think that I want to cultivate other aspects of my life besides just doing, having good grades or being good professionally. until very recently I would like to take on a new role for what it would bring me in terms of like, oh, this was prestigious. [Now] I really think about why am I doing this? What benefit will this really give me? What can I contribute to this and why is it important?
>
> *What tells you that this is a better way of making sense of what to do?*
>
> **Ethan:** I have one friend specifically for instance, [who] dropped out his masters to [...] develop a new type of 360 camera basically. And sure it's a complex problem you'll be selling for the next couple of years. But like do we really need a three 60 camera? Like is that really a necessity? Like I'm sure someone else can go do it themselves. Like I'm sure it's a difficult problem and they'll take a couple more years than it will take him to solve. But does that really make a difference?
>
> *What's something that's necessary or that would make a difference for you?*
>
> **Ethan:** I think that's an ongoing question. Um, I think something that can really impact people's lives.

In Ethan's reflection above, there is a certain awareness of what doesn't matter[13], but what matters is still largely unknown. Most of all, the difference that matters is still unknown, but the merit of it will depend on whether it has an impact on others, not on whether it is thrilling to him[14].

Consequence As the connective concept becomes its own organising principle, progressively making its construction independent from the context it is different from, value shifts towards what the thing is and distinctiveness is a consequence of that value:

> **Rasheed:** People are doing things except me. That's what makes me exceptional. If there's the bell curve, and I'm a standard deviation, that means if everyone's here (*the middle*), that means if you're doing what's

[13] Which still is defined as something that no-one else can do

[14] In the rest of the interview, he does talk about health as the context in which he sees his help, and how his aim engaging in his non-health-related startup revolves around learning new skills. But there isn't much actionable specificity beyond "health"

in here (*the extremes*), you're not on the bell curve. I think maybe I'm on this side (*the lower end*). But, um, I can guarantee myself I'm not here. So I'm playing in these two spots and I have to, for the possibility of a hit, right? So I got to play those dimensions and maybe I got a 50 percent shot, but if I'm here, I'm 100 percent guaranteed not on the outlier. [Y]ou should not just do what people are doing, because you're not taking advantage of what makes you unique and special[15].

[15] That's only possible *if you can perceive* what makes you unique and special

Rasheed: I don't like normal.

Why?

Rasheed: Because how do you leave a legacy if you're just normal legacy?

In the reflection above, the connective concept is Rasheed himself. Coming from an ethnic minority, his contribution is to impact "culture for little kids" of his community through his own example (see page 60 for more of his thoughts), which may make it harder to see distinctiveness intrinsically. On the other hand:

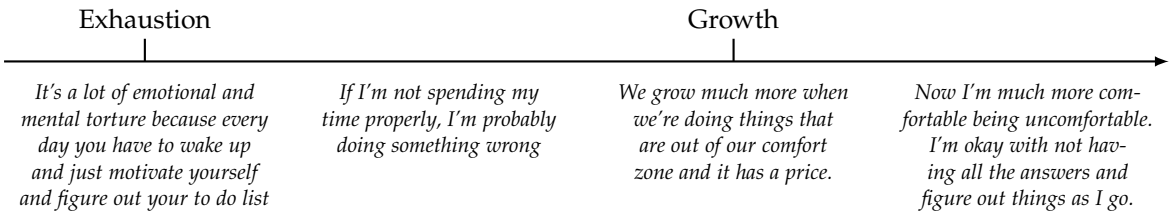
Michael: I want [the company] to succeed, but if this doesn't succeed at the same time, there's so many things that I can take on. I think everybody I've noticed think they are irreplaceable or that they are doing something that nobody else can do. And I just don't think that's true at all. I think everybody and everything is replaceable. Whether that's a company or me as a person. If I quit or was fired or got divorced or whatever. I think would be able to find a way to replace the hole in my life or other people would be able to replace the whole in their life or their company. And that's maybe not optimistic thing to say.

Michael: But it takes a lot of weight off my shoulders honestly. Because I think if you think "you're the only person that can do something and if you don't do it, absolutely nobody else will be able to do it", that just puts a lot of unnecessary weight on your shoulders. And for me admitting that like I'm not really that important of an individual or a person. And like, if I wasn't here tomorrow, people would move along and find a way to be happy. For me that's very relieving because it's just like, "okay, it's not my job to make sure everybody's happy". I can just focus on the things that are important to me and the rest of the weight of the world does not have to be on me, and personally, it's a relief.[16].

[16] This is an evidence of an intrinsic evaluation of risk. Michael has a certain notion of what is important to him (which in his case is the process of experimenting with the world).

For that belief to happen, one must have a clear sense of what is important to them, beyond their marriage or current career, and be confident that those things stay with them independently of the situation—meaning their presence is intrinsic to the self.

4.3.2 *Challenge: facing the need for learning*



Challenge, when comparing ourselves to an external image, can be seen as an exhaustion. We are not whom we want to be, where we want to be at, and this event in front of us is another reminder of that reality. The notion of time wasted is also omnipresent. If it's a challenge, that means we have to learn to overcome it, so we are wasting time in comparison to it not being there.

We then see challenges as something that has helped us grow—but that still impedes the startup. Finally, the startup itself, as an organism in construction, is seen as the playground for challenges, each one showcasing a new facet of reality that neither the person nor the company have discovered yet. But for that, at least to Michael, one needs to be open to integrating that facet of reality for it, hence the comfort around accepting his lack of knowledge. Challenge is a threat when it's against old habits; it's a discovery when it's the drive of our evolving self.

Exhaustion At first, challenges are seen as the biggest impediment of success, and successful entrepreneurs are the ones who can withstand all of those challenges:

> **Isabel:** The startup I had did decent but not stellar[17] and I just felt like it was so much work and energy that's consumed. It's also a lot of emotional and mental torture because every day you have to wake up and just motivate yourself and figure out your to do list. I guess you kind of grow a calus from hearing no or whatever and that makes you stronger. But at the same time, it's exhausting[18].
>
> *What was exhausting about it?*
>
> **Isabel:** I am more into product development, then everything became about sales and I hated that. I'm good at sales. I was able to close big negotiations with vendors, with my clients. I used to sell at Walmart. I used to sell in like 10 different countries, but it was just first the amount of effort versus the returns weren't adding up. Then I also felt really connected to what I had created and so it was a really hard to say no and stop.
>
> *What was keeping you in that startup, even though it was exhausting?*
>
> **Isabel:** The thought that I'm not going to be a quitter[19].

Isabel struggled to reconcile the parts that she liked with those she didn't like, and to manage her expectations with regards to her

[17] Her projected outcome was to be "like IKEA"—an uphill climb for sure

[18] The image here is striking: challenges is being told "no", and you grow a "calus" which makes you "stronger". There is no element of self-growth embedded in the challenge.

[19] This is a collapsed belief—I won't quit because I don't want to be a quitter. The dilemma she later describes was that she was not selling enough and had reached market capacity, so she couldn't grow further.

startup aspirations. In this image, she is as she is, and each challenge is another foe to beat during the journey, not knowing whether she'll succeed.

Because our time is limited, the cost of failure on our ability to be successful can be felt pretty strongly:

> **Flavio:** The most exhausting part of uncertainty is not knowing if you're in the right direction. I think like being afraid that you're just wasting a tremendous amount of time. And never before I felt the time was so valuable but now I literally feel that my hours are worth so much. The thing about "time is money". I never really understood it too. Like I started this like there's so much. Like I really, I really have to think about my time in a precious way. And I think this is also a little bit exhausting, you know, so probably this.
>
> *What's most exhausting part about the "time is money" thing?*
>
> **Flavio:** If I'm not spending my time properly, I'm probably doing something wrong[20]. And it's a waste. And this really, really annoys me, like the feeling that I could be doing something better with my time.

[20] Wrong in relationship to what? Entrepreneurs have to be wrong to learn what that is, and accept the finiteness of our time on Earth.

Growth If we were to see challenges as situations that we haven't encountered yet, and therefore have to build solutions to, feeling like challenges bring exhaustion is fundamentally unsustainable for entrepreneurs. Because the company is being built, every situation is one that has not been encountered yet. The realisation that challenges have a positive and lasting flipside comes from Flavio again:

> **Flavio:** It's about growth. We grow much more when we're doing things that are out of our comfort zone and it has a price. It's a costly price but at the same time it's the way that you can personally grow the fastest way possible. It's so clear to me that the delta of change for myself both from a personal and a professional perspective in the last year is so much bigger than the past years. For the last year, I have not felt comfortable any day of my life. And I think that's why the challenge is important. I was completely in my comfort zone in banking. After three years I was in my comfort zone and I had to get out of it.
>
> **Flavio:** It's like I'm constantly underperforming but I'm underperforming myself. Probably outperforming my past self, you know? So that's why I'm playing the catch up game because I'm always trying challenges there are higher and higher than what I can grasp now[21] and I'm just like, my brain is trying to adapt it in, move on to those challenges in the growth so I can like master them.
>
> **Flavio:** [Pulling the success card] Yeah. Yeah. So I feel that all the time also. So it comes hand to hand with the anxiety. So that's probably what drives me to do it. I spoke about all the bad things and if we were to end the interview there, you would probably conclude what the fuck is this guy doing with his life, it's so miserable. Like why does he continue? Because there's the other side of the coin because

[21] There could be an internal dichotomy between the past set of quotes (where Flavio is annoyed about not spending time properly) and the realisation that he is growing through these challenges

> there's this feeling, this positive, a contagious energy of success, of having positive feedback. And that comes in like a variety of ways. It comes to like people wanting to work with you. People starting to look up to you and like see you as a reference. Uh, it comes with you looking into yourself and seeing how you really evolved from a maturity perspective, it comes from like having people wanting to invest in you, which is great.

In the above quote, Flavio feels like his experience is building him to be the person that can succeed, and can see external metrics for that—from his employees, the people that look up to him, his maturity development, and the belief that investors put in him. Yet, the company itself is not seen as that subject of growth—he's only growing through the building of the company, and he sees it through his actions, not his feelings. Below, though, challenges are seen as a process of growth for the entrepreneur *and* the startup:

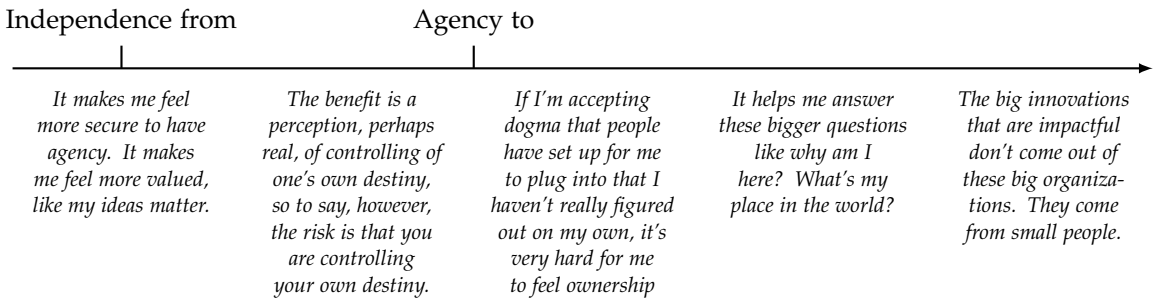
> **Michael:** I feel a lot more authentic now; I don't have to have the answers. So it's okay if in business or in my personal life I don't understand something I'm okay saying "I don't know" or "I don't understand" and that doesn't impact how I value my life. It's okay for me not to understand. Whereas before it was very much predicated on "I know that this is the right religious belief" or "my company's great", like, "it is prestigious", whatever. And now I think I'm much more comfortable being uncomfortable. I'm okay with not having all the answers and figure out things as I go and I think that leads me to live a lot more authentic life or at least feel better about the identity that I have.

> **Michael:** I think from my perspective it's more real to kind of like ask questions and figure out if you're right or wrong. For entrepreneurship I can do that. If I believe a customer will value this type of thing, then I can test that out by talking to customers and trying to build that product or showing it to people and figure it out. So when I look at a bundled religion with a lot of different beliefs packed in, or when I look at a large organization that has grown successful for a package of things that they do or believe in[22], I think there's a little room to kind of like experiments with other things because the way that they have been doing things seems to be working and I just, uh, it seems less real or less true because I didn't do the experimentation myself.

[22] In much of his interview, Michael talks about packaged beliefs institutions as either churches or organisations—mirroring the two contexts that he has had experience feeling limited in.

This vision of the entrepreneur as a builder through experimentation becomes increasingly central to intrinsic perceptions of entrepreneurship, and the more intuitive (and present) the habit of growth is, the more likely it is to be seen as a measure of success (see 4.5.3).

4.3.3 *Freedom: the capacity to create one's own context*



In the primarily extrinsic perception, freedom is something we want to get—meaning we don't have it right now. As we actually get it, again, it is not the freedom itself that gives us happiness, it is what it enables us to do—a knowledge that takes the intrinsic perception to bring about as well.

Independence from At first, seeking independence may come from the same place as not feeling replaceable—finding a place where we will be valued:

> **Neha:** I think it makes me feel better, like it makes me feel more secure to have agency. It makes me feel more valued[23], like my ideas matter and the work that I do matters. It makes me feel less like a cog in the machine.

[23] Note here the conjugation of the verb—Value is received (from the outside) for work that is one

Yet, the possibilities that the agency provides are not really tackled. Instead, it is the feeling of being a "cog in the machine" that is avoided.

Taking the metaphor of the explorer at the frontier again, seeking independence is a risky affair. If an entrepreneur is an explorer, creating a startup becomes an outpost, whereas being in an established settlement (a company) provides a sense of safety:

> **Peter:** The benefit is a perception, perhaps real, of controlling of one's own destiny, so to say, however, the risk is that you are controlling your own destiny. So hopefully it works out well because if not, it sucks pretty badly. The risk also is to find the right people to work with, finding the right kind of product market fit, if that's something that needed, having the financial reserves to possibly forego an income for oneself or one's family for an indefinite amount of time and perhaps if one's bootstrapping, putting a lot of money, one's own money in too. So instead of hiring, hiring oneself to do, way more than a full time job and paying a whole lot of money to do that.
>
> **Peter:** So it's kind of the complete opposite of a traditional job where you get paid and you can have defined hours. However, with that, say, traditional job of have defined time and expectations and a paycheck that, that does have an inherent stability to it. There's reliability in terms of pay, more or less. Though risk being my perceived risk of

that being that when there is a push for over specialization. And so getting pigeon holed into an area that just gets boring for the human to be doing over and over again[24]. As well as an expectation that the financial situation will keep on earning money when that may not be the case because of a layoff or firing or getting injured or what not. So there's a risk of getting dependent on an income stream that isn't reliable, even though it may appear to be.

[24] The topic of boredom is very recurrent in the interviews, when explaining why the previous job was unfulfilling. Often, the explanation was tied to over-specialisation and set demands.

The weight of the risks is felt in the experience of entrepreneurship. The quote below comes from someone who made a startup back in college and now reflects on why it is different now:

Neha: I think when I was, I think the most like fulfilled or like the most fun I have had was when I was working on my first startup where it was like if we fail, it doesn't matter. Like it was just sort of like a pure like, oh, let's try this out, let's try this other thing out. Like it was like pure, it felt like it was pure energy without having to worry about the consequences in many ways. And um, I think that was a, or it felt like a really cool place to be.

Neha: Why am I worried about my current startup? I think I'm worried that we won't find the right market. We won't make enough money for it to be worth it and for us to have put in all of this time. I worry that it's too early to market. I worry it's not something that is actually adding value or something that people are likely to be willing to purchase. Its existence is reliant upon being able to do all of those things[25] like produce value, produce revenue, yada yada yada.

[25] The creation of a context in which Neha's agency is secured is therefore not up to her, but to the things that she mentioned—all extrinsic factors that she worries about.

Agency to With the felt recognition that challenges not only build meaning for the self, but also for the startup context that is being built, Michael sees the benefit of creating his own context:

Michael: If I'm plugging in, if I'm accepting dogma around beliefs or business or things that people have set up for me to plug into that I haven't really figured out on my own, then it's very hard for me to feel ownership of that. And it's very hard for me just to fall in line and be like, "yes, I will accept that". Like Richard Branson or this church or whatever system would have built a system that I would be best off in. I just have a really hard time accepting other people's thinking for what is best for my life.

Rajae finds her the thrill in discovering herself through her exploration:

Rajae: What fulfilment do I find? I think it makes these connections that I didn't do. I was an education for a bit back. I was always like, why don't I care about about serving 30 students? There's this entire school district, what's going on there? I always had this curiosity and then I was thinking this housing component, where does this fit in? I don't know how all these pieces fit together. So exploring my mission allows me to understand why do I care so much about housing and the way people come together and community and I'm like, oh, well, I'm

learning now. In the past three years, oh my gosh, cities' property taxes have everything to do with the state of the public school systems and these charter schools and these private schools that formed thereafter if they find that public school aren't adequate or there's some type of curriculum that can only be afforded in a private school.

Rajae: So all of this is interconnected, but the fulfillment for me, it's connected to why I believe I have what, 80, 90 years on this earth if that to serve and why I'm here. It helps me answer these bigger questions like why am I here? What's my place in the world? So that to me is fulfilling to feel like I'm not trying to be a carbon copy of someone else, not even anyone in my family[26]. I'm just taking some of the skills, the things that I think we naturally have and allowing that to express themselves in this particular industry or in this particular company. But for right now, what would that look like for me? And that's quite fulfilling. It's more fulfilling than work. I was getting bored. I was, I started applying for grants. I got a grant to do my own thing. It got to the point that my, my supervisor was like, are you being distracted with your side work? And I'm like, of course. And it gives me life like, and it was like, oh my gosh, everyone sees it. Like I come to life and I wasn't challenged[27].

[26] The value of the fulfilment is partly constructed from the fact that it's separate from others, which *still makes the value extrinsic* to a certain degree

[27] Again, the choice of entrepreneurship as a way of being challenged

This quote, beyond its engagement, also serves to remind us that an intrinsic perception needs not be intuitive to be able to come to these realisations. Remembering the elements of the intrinsic perception as described in 3.2.2 on page 35, building an internal foundation comes before securing the internal commitments. One can play a game without necessarily being a professional at it, and the enjoyment of discovering the self can be felt much before we have an intrinsic meaning for it.

With an intrinsic perception, building a company is a reasoned choice if one wants to be innovating:

Abe: I would say there are a number of reasons you can end up being an entrepreneur. You could want to make it big. You want to feel superior where you could want to have, somewhat of an impact driven life. And I would say all of those are present in me. But I really do think that wanting to be impactful is the main driver for me. I wouldn't want to cast judgment on other people whose shoes I haven't really walked in, but there are people that are there for reasons other than why I'm there—and you can feel it in the culture—that I would value as much more selfishly oriented.

What made you decide entrepreneurship was the way that you would have an impact?

Abe: I love history and I think if you read history, you find that the big innovations that are impactful don't come out of these big organizations. I've had a chance to work in bigger organizations. In fact, you know, I've had internships and done work with, with the US government and on Capitol Hill and you know, if you're really there, this is not an effective organization for getting things done. And there are

reasons for that and it's not a necessarily a critique and big organizations still have a lot to do just in terms of keeping things moving[28]. But innovation tends to come from small people. And uh, one, one person, I really, a couple of people, I think a lot of George Mitchell as the father of like fracking for example, when he was some small wildcat or who was able to innovate more and wasn't burdened by a large bureaucracy and was able to experiment and really unlock something that has done a lot to reduce greenhouse gas emissions, bring down the cost of energy for the entire country.

[28] The judgement on big organisations is not absolute. For the specific context of why Abe chose entrepreneurship, though, they are not—the ability to tailor the judgement of value on the question is an intrinsic feature.

Abe: And honestly despite the problems that fracking has done much more good than harm in terms of reducing energy costs and improving environmental outcomes. And he was a small entrepreneur, similar, I'm forgetting the name, but I talk about my love of history, but the father of the green revolution, again, a small, slightly more academically focused guy than I'd say entrepreneur, but still a small group looking at like how can we can actually improve agricultural yields and you know, people have credited his work with saving billions of lives from starvation in places like India, by improving access to food and decreasing the cost of food and improving fuel food yields. And people like this I read about are the people that, you know, I, I don't think I'll have the same impact as any of these great people, but I want to follow their example and do as much as I can.

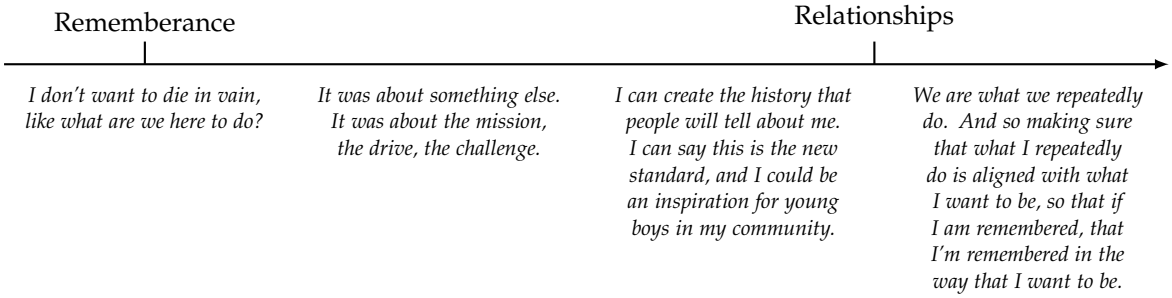
Abe: And I see that coming from entrepreneurs and innovators and typically not from large companies, even if they have a mission simply because there's so much bureaucracy[29] that you can't... A big organization is just almost inherently antithetical to innovation and trying new things and being nimble.

[29] The reason why a small organisation is more apt to innovate is perceived

4.4 Purpose beyond the self

Because purpose beyond the self pervades through people's meaning-making, many of the previous quotes already gave a sense of the importance of legacy. The following sections serve as an onverall sketch of the progression from legacy and impact as goals to consequences of having built an intrinsic perception.

4.4.1 Legacy: being remembered for your actions



Legacy is a large driver for many of the entrepreneurs. It is often described as a memory. "Whom will I be when I am gone?" is a question that many entrepreneurs face. The common answer is "whatever impact I have made in my life". As the intrinsic perception grows, the process through which that impact is made comes to light, and the constitutive elements of impacts are shown to be the individual moments we share with others.

Rememberance Legacy is defined very clearly at first. When you're not present physically, but in other people's minds:

> **Isabel:** For example, Estée Lauder, she already died but her name lives on and you can read her story online. And she's present. I guess that's how I define legacy. She's still a light.
>
> *How is that important for you?*
>
> **Isabel:** Because I felt like my mother died in vain[30]. And so I don't want to die in vain, like what are we here to do?

[30] In that sense, maybe her mother died in vain because her name doesn't live on

That thought is echoed when thinking about why the initial drive behind entrepreneurship was started:

> **Flavio:** I happened to actually really enjoy working with finance. As the years progressed and I felt a little bit more mature, I realized that for me it was not about the money and I think that was the biggest change that I think that I could see. I wanted to do something big. I wanted to have a legacy. I want my kids when they are 10 years old to be able to tell all this is what my dad did[31]. That's why I quit my job, went to work for a startup and then I came here and I decided to start my own company. It was because it was about something else. It was about the mission, the drive, the challenge.

[31] External validation from his kids

The link between legacy and impact is clear: legacy is the sum total of your impact over time:

> **Rasheed:** [Legacy is] the sum total of what you've spent your life doing, such that your life should still be remembered.

Some people have a personal stake in leaving that imprinted memory. Coming from a racial minority in the USA, Rasheed's lack of role models that he can identify with leads him to feel personally responsible for taking back the historical narrative—and "recreate culture for little kids" in his community:

> **Rasheed:** I feel like my history was taken from me. It was stolen from me. We live in a technology age where I can take a DNA test and tell you I'm this and that. Sounds cool, but haven't been to any of those places, so I can't undo the history that was stolen from me, but I can create the history that people will tell about me and I feel like I have responsibility to stand in direct opposition to that.
>
> **Rasheed:** If I do nothing in my life, I played it safe and there is no legacy then I didn't need the history in the first place. All right, but if

> I challenged the world, if I shake it off, if I find something I'm willing to die for and dog fight for, maybe the history books will be retold and will have to remember that in this season of the world, in this day and age, all the ancestors that came before me, that this one made sure that our legacy was remembered in the life that he lived.

In his case, he sees entrepreneurship as a direct link between the changing of the culture and the cultural legacy he seeks to create:

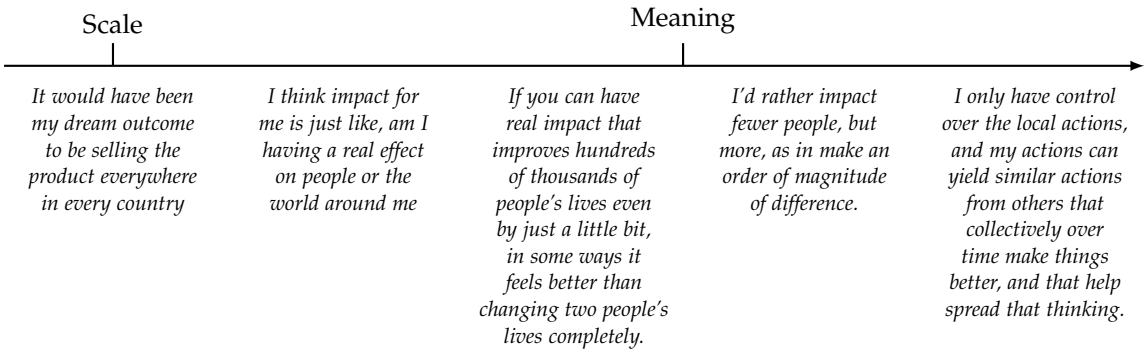
> **Rasheed:** Entrepreneurship gives you that unique opportunity to create culture the way that you see fit. So if I'm CEO and my product's killing, I could come to work with my leather and sweats. And I can say this is the new standard, and I could be an inspiration for young boys in my community.

Relationships Since legacy is the sum total of your actions, it is built at every moment. The more that is felt, the more the idea of memory moves to the present. Legacy is built through every relationship:

> **Roy:** I think one thing that I always want is just to make people feel that I support them, [and] care about them [and] what's going on, that they can be honest with me, that they can share things. Anything that they want to talk to me about, that I'm there for them. And that I have been supportive and I'm contributing positively to their life. [...]
>
> **Roy:** I think it kind of comes back to integrity to yourself and what you actually want, to the role and the effect that you want to have in the world. Can you value the things that you do every day? Can you make the most of those things that you do every day? [B]eing surrounded by people that you love and being at peace with the life that you've lived and feeling that you've contributed to the world and to other people is kind of an ideal scenario regardless of when that time comes and, you know, you never know when that's going to be.
>
> *What's best for you about that?*
>
> **Roy:** Um, I would say that personally I have, uh, I have a desire to have a positive legacy and I think that again, it comes down to relationships and the way that you influence in and interact with people. And if there are things that I can do to make just at the simplest level and the things that I can most control because there's so many things outside of my control of my life[32], the things that I can control, how I act, how I make people feel, how I build value in relationships, that at the very minimum is a way to ensure a legacy, a positive legacy and feeling at that moment of being at peace with the things that I've done with my time.
>
> *Okay. So it's something that you do in the moment that ensures your legacy.*
>
> **Roy:** Yeah, in the future, and that kind of comes down to the saying that we are what we repeatedly do. And so making sure that what I repeatedly do is aligned with what I want to be. So that if I am remembered, that I'm remembered in the way that I want to be.

[32] This is reminiscient of the letting go seen in 4.3.1 on page 50

4.4.2 *Impact: the effects of one's actions*



The extrinsic idea of impact is one of scale: the more people are touched by your actions, the more impact you have. The personal meaning of the impact doesn't enter its extrinsic evaluation. Even though we still act towards a specific impact, the choice of that impact is not made because of its importance to us, but because of the possibility of making it big. On the other hand, as the definition of value becomes more intrinsic, it moves away from the social context of scale. what is valuable becomes what is meaningful to us, and since we can feel it every moment, we do not need to see the size of the impact to revel in the meaning done at that moment.

Scale

> *What would have been the projected outcome [of your startup]?*
>
> **Isabel:** Yeah, well it would have been my dream outcome to be selling the product everywhere in every country. Like an Ikea.

The impact felt also helps us know that what we're doing is useful:

> **Roy:** Growth is exciting because it means people like what you built and they're wanting to use it a lot. Scalability is exciting because it means you can serve a lot more customers very, very fast. [...]
>
> **Roy:** If you can have real impact that improves hundreds or thousands or hundreds of thousands of people's lives even by just a little bit, in some ways it feels better than changing two people's lives completely, so I don't know the right way to measure that impact[33]. I think impact for me is just like, am I having a real effect on people or the world around me or am I just kind of playing along and not really having an effect on the world around me?[34]

[33] For Michael, what is real is what he experiences. He might then tie a more scale-based idea of impact from his experience seeing the growth of his startup.

[34] This is a collapse belief: impact is having an effect, not having an impact is not having an effect.

Meaning As the reflection complexifies, two things happen: the meaning of the impact to the person becomes more important than the scale of the impact, and the ways in which a person's actions furthers the impact are more talked about. I heard justifications, with varying levels of complexity, explaining why jobs, teaching, health,

energy, coaching, etc. were the context in which impact was chosen. In justifying "depth rather than breadth":

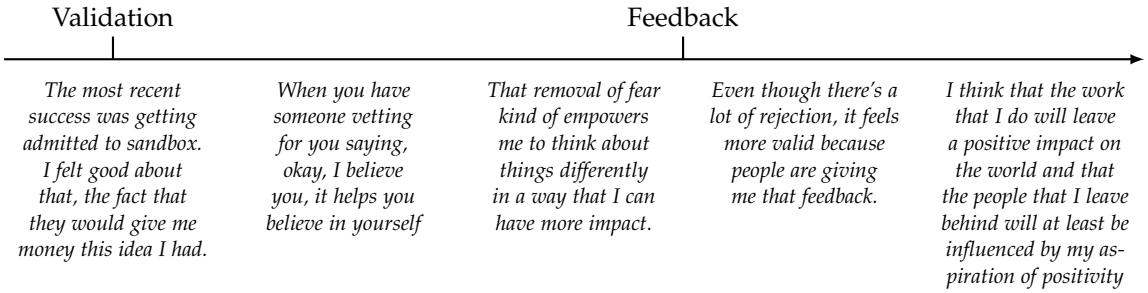
> **Ali:** I'd rather impact fewer people, but more, as in make an order of magnitude of difference. I'd rather, for example, give machine learning courses to 10 people that they master and they go give it to 10 people, then go give a one hour workshop to a hundred people.
>
> *Why?*
>
> **Ali:** Because knowledge is not something that you can just peruse easily and say okay. I've looked at it. Oh, I understand this completely. Knowledge takes dedication and time and you could only get... You can only transfer in an effective manner once you have an intuition for it. And to me, the only way that you can do that is therefore by gaining a depth that you can only get through time and fixing things and then doing things. So to me it's important that you actually take the time to learn things because I think our brains need that habit of being intuitive. So to me, I'd rather teach 10 people then start a movement that they teach 10 people because I think when you actually compound that, it's a lot faster at a global system than it is at a small system.
>
> **Ali:** But when you actually look at it this way, the depth of the knowledge of that tree becomes that those 10 people will also take time to teach. And before you know it, you have a tree that is much deeper and more broad than the actual 100 people because they'll have forgotten about it and they can't teach it to anyone else. And maybe by the time they actually go and teach somebody else, they forgot some stuff. They teach them some things wrong. And before you know it, you're actually doing the opposite of what you're trying to do.

Finally, from a more conceptual level, the relationship between impact and action becomes a "thesis" for action:

> **Roy:** I think that in my mind there's this very concrete and easily applied framework because it is so rooted in this essential a unit that is the moment. [O]ne thing that I'm really fascinated by is the way that local, simple, repeated, behaviors can have global Effects. And so I think of these as saying, okay, the desired global effect is x. What are the simple local behaviors that I can practice and that I can try to disseminate within my immediate environment and network that can have that global impact or at least the region, have impact beyond just me. And so I think for me it's thinking about what are those rules for me that can shape my behavior, that can support, that can be a simple example for others. I think that there's an inherent consistency between the [local actions and global impact] because it's not about "I'm doing this at this level and it's very different from what's up here". What happens at the global level only is yielded by the collection of local actions. And so for me, I only have control over the local actions. But the things that I believe about how I can make people feel better makes it so that potentially they can have a similar realization that they interacted with me in this way, [and] they want to make other people feel the same way that I've made them feel. I have that thesis that my actions can yield similar actions from others that collectively over time make things better, and that help spread that thinking.

4.5 *Finding direction*

4.5.1 *External opinions: seeking them for validation or feedback?*



Since the extrinsic perception forms its concept of value from external clues and frames, the importance of external opinions can be felt throughout the quotes. This sub-section therefore focuses on the shift with investors, but it is present with everyone important to the interviewees. Investor are the most striking indicator of the merit of the startup. The amounts of money I heard in the interviews were in the millions, which is more than a decade of salary. That is bound to give some feeling of self-worth, if we tie our identity to the startup[35].

As the intrinsic perception grows, there is less reliance on people as sources of validation. The intrinsic perception, rather than putting validation as a targeted outcome, sees it as an input for feedback.

[35] Though it can also help see that the money itself is empty of meaning, and that instead it is the growth that led to it and the potential it enables that brings that meaning forth

Validation At first, the idea that we're capable of doing something is wholly dependent on external opinions:

> **Jay:** The most recent [success] was getting admitted to Sandbox. I felt good about that, the fact that they would give me money this idea I had. So it kind of validated that I'm capable of coming up with good ideas and then, getting into MIT also validated that I am like, you a capable person like. I know how if I apply myself or if there's something I really want, then I have the means and the motivation to make it become a reality.

The validation of investors' money can then reassure the feeling of capability. Even small amounts:

> **Flavio:** You know, when you have someone vetting for you saying, okay, I believe you, it helps you believe in [yourself][36]. So for instance, the very first semester here at [School], I applied for this resource to go back to Brazil to do some market research. I had no idea what I was doing.
>
> **Flavio:** [T]he money was like a thousand dollars. It's not much. But it was way more than a thousand dollars, it was the first time that someone was giving me money to pursue an idea of my own. And I felt at the same time happy and like, "whoa, someone believes in me". But at the same time the sense of duty. I'm using someone else's

[36] Technically, there is still a feedback, but the question that is tested is "am I right to believe in myself?"

> money, now I must do something with this. I have to put it to good use, someone believes in me. So it drives me into helping me believe in myself. And also as a push. Well, now people rely on you so you better deliver. [...]

The feeling becomes empowering, and helps move away from the feeling of being constrained by a salary:

> **Michael:** I can be in control of things so much more so than I realized I could be before. It really gave me a lot of confidence and took away a lot of fear. All of a sudden it's not as scary to think, what if I lose my job? Before I used to be so worried like what if my salary goes down and now when you've been in a situation where you can ask for a million dollars and how people consider it, it's just a lot less scary[37]. And I think that removal of fear kind of empowers me to think about things differently in a way that I can have more impact[38].

[37] There's an underlying extrinsic argument here: before I could only accept my salary, now I can demand much more. But the feeling of agency has definitely moved towards the self.

[38] This removal of fear is echoed in 4.5.2: the less you think about what you have to do, the more you think about what you want to do.

Feedback The value of external opinions moves from being needed to ensure that the startup is worth it to a data point for improvement:

> **Roy:** There are people that don't use us. We sell to customers and they say, no, we're going with other people, or we pitch to investors and they say "You guys are interesting. But I'm not going to give you any investment" And so even though there's a lot of rejection there, it feels more valid because people are giving me that feedback and I feel like if I deliver tangible value here, I will get rewarded for tangible value[39].

[39] Michael knows here that he is not to receive positive feedback from everyone—reflecting on what value to give to an opinion is an extrinsic move.

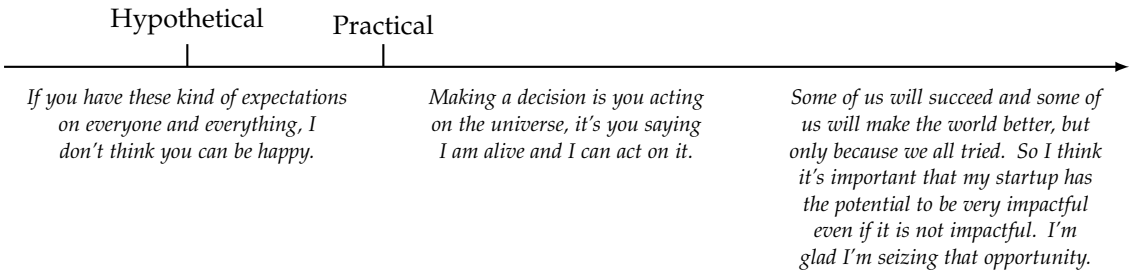
The concept of value itself also started to switch its direction for Michael. From being received, it is instead given to others. For Roy, the direction is very clear:

> **Matt:** My vision of success is being able to positively contribute to the lives of the people that mean most to me, the lives of the people around me, to help people feel valued[40] and comfortable. In practice that looks like being able to perform or achieve results that allow me to say, make sure that my mom is comfortable when she's older. [T]he same goes for the family that my fiancée and I will build. And I think that the work that I do will leave a positive impact on the world and that the people that I leave behind, whether that's friends or children or whoever else are at least influenced by my aspiration of positivity[41]. If not imbued with it.

[40] Notice the conjugation. He seeks to give value to people. There is an underlying assurance that enough value is being given to him. At the very least, receiving valuation is not part of his vision of success.

[41] Meaning he sees it in himself already

4.5.2 *Potential: moving from the wish to the practice*



Perceiving the potential of the universe can feel very scary for those who care about it—in contemporary culture, the potential is not a utopic one for sure. But for the mostly intrinsic perception, which can contextualise the idea of potential to the moment, potential is actualised in actions.

Hypothetical The desire to increase humanity's potential drives many of the entrepreneurs, but it is not necessarily one they are confident in voicing at first:

> **Flavio:** Ideally, if everyone were to put their talents to maximum use, I think humanity as a whole would be progressing multiples of whatever is the acceleration rate of right now. So I think life would be better for everyone. More sustainable, less deaths, better for the environment, better for literally everything I see.
>
> *What does it tell you about yourself?*
>
> **Flavio:** That I'm insane. I guess it's setting up yourself for a disappointment. It's so ideal. If you have these kind of expectations on everyone and everything, I don't think you can be happy[42]. [...] I'm constantly trying to make things differently and exponentially grow and I have a hard time understanding that not everyone might necessarily feel the same way.

[42] The assumption here is *if my idea of what should be is not what is, then I cannot be happy*.

Practical The discussion on potential progressively moves from the perfect to the practical. There is a narrative of taking decisions based on survival versus doing what is felt to be best for the self:

> **Ali:** Making a decision is you acting on the universe, it's you saying I am alive and I can act on it. Whereas if you are just surviving, then at best you're putting up with things and so to me what's important is that the only way, you don't want to say an absolute, but like one of the ways I do feel alive is being able to make a decision with multiple factors[43]. Whereas when you're surviving, you're making very short term tactical decisions and to me I'm not sure that that's really you.

[43] This isn't about what should be; it is about how Hakim goes about his life. The way to feel alive is felt through the *decision itself*, not the *result of it*.

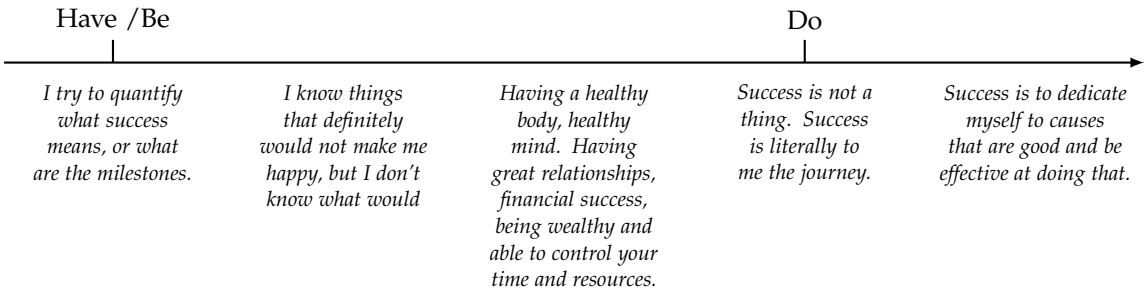
When fully felt, the narrative of our actions realising the potential of the universe can very well justify taking on entrepreneurship. It's a consequence of being at MIT as a starting point, and recognising the privilege that brings. In the following reflection, taking on a risk is seen as a duty:

> **Abe:** I feel like I have an immense sense of duty, but it's definitely not a burden substance of duty for me. I kind of feel like I have a duty incumbent on the opportunity that I have[44]. [...]
>
> **Abe:** I feel like I am taking a risk, which I think is good. I feel like we should live riskier lives. Especially since I have the opportunity to do it without a huge amount of downside in this point in my life.
>
> **Abe:** I feel like [my startup] has the opportunity to improve people's lives. I think again, if everyone took a chance on something that could

[44] Which means he assumes he can take on that opportunity

be impactful, it wouldn't matter so much whether or not I succeeded at it or you succeeded. If dozens, hundreds of us are doing it, some of us will succeed and some of us will make the world better, but only because we all tried. So I think it's important that it has the potential to be very impactful even if it is not impactful. I'm glad I'm seizing that opportunity.

4.5.3 *Success: where the feeling of it lies*



In the extrinsic perception, success is a thing we own (or want to own). It's a static goal to reach. Intrinsically, it's a process. Success is *being successful at being ourselves*. If success is the fulfilment of purpose, the intrinsic perception doesn't seek purpose, because it finds it in every action.

Have/Be In its extrinsic form, success can be a very specific thing, or set of things:

> **Isabel:** I try to quantify what success means, or what are the milestones. And so I put the milestones that I want to reach and so I see it in terms of milestones.
>
> *Why does it make sense to quantify success as milestones?*
>
> **Isabel:** I mean, doesn't everyone do that? [...] It kind of makes me feel accomplished. I did what I had to do for that day. So [...] I can compare myself to others also.

The extrinsic perception on success is abstract, with no explanation of what each word actually means. Despite that, all of those terms are described as being owned ("having"):

> **Jay:** A vision of success? Having complete freedom. Having [...] people that you can rely on and who can help you and work with you[45]. Feeling happy... general happiness is good success.
>
> *How do you know that you are happy?*
>
> **Jay:** That is relative. But if you feel engaged, if you're interested, if you generally feel alive or feel like things are new or positive then I think that's happiness[46].

[45] Much of his interview tackled his difficulties in gaining new friendships

[46] This answer is technically a collapsed belief—he stays at the same conceptual level, describing a state with other states.

As the definition of success grows more intrinsic, there's first the loss of a specific definition:

What is your vision of success?

Flavio: Being happy? It's just that it's so hard to understand what being happy means. There are lots of times where I think will this make me happy, it's not a given. Let's say my venture becomes a success and I become very, very famous, rich whatever business and I help a lot of people. It's still unclear to me if that's going to make me happy or if that's just going to make me more worried and more anxious and I don't know, and then if it doesn't, what's the answer? Because it's the best guess that I have. I know things that definitely would not make me happy, but I don't know what would you know? That's a problem.

The idea then moves away from a specific thing, and turns more into a vision for the self:

Rasheed: My vision of success is a holistic success. It's having a healthy body, healthy mind. Having great relationships with your partner or your family, having financial success, being wealthy and being able to control your time and control your resources[47]. Um, it's being able to[48] give back, to impact and I think particularly I think to give back but also to be able to fill in some of the gaps in the world.

[47] This vision is still based on ownership and control, so there's still some extrinsic perception in this answer. Those things are close to the self, though, meaning it is easier to get them through action. But success still isn't the action itself.

[48] *Ability* rather than *Action*

Do The more intrinsic perceptions of success are actions that the person *does,* rather than concepts that the person *seeks*:

Ali: To me, the vision of success is like diminishing delta your potential and what you're achieving. So if you imagine yourself and you think, man, I can play at this level. Let's say you're trying to be a hockey player. Yeah. Success is you continuously improving to get closer to being a hockey player[49]. And so success to me is actually more the journey. The actual improvement rather than the end.

[49] The definition of a hockey player is still separate from the act of getting closer to it

Ali: Success is not a thing. Success is literally to me the journey. So it's the, it's how you get better and I can see it in some things. Like for example, I've gotten better at certain things that I did not, that I was not good at before. For example, like I've taken up sailing since I got to Boston. There are certain moments in sailing where I was like, oh, I was overloading my brain. The capacity of my brain that has been used for that activity was very high because I'm trying to do it and now it's a lot lower. I can actually have a conversation and not crash the boat[50].

[50] Though this definition is focusing on defining success as improvement, there's still a "journey", meaning there's a goal, a "thing" to achieve—in this case being intuitive at sailing and not overloading the brain. Success is an action defined in terms of a thing, so the vision is mostly intrinsic but not fully.

When success is fully intrinsic, it becomes a "life well lived". No goal, no journey, simply doing what we feel is true to ourselves:

Abe: Doing well at doing good. By that I would I mean that there are good works to be done in the world and we should pursue those. And then there's also efficacy, which I would say is like doing the doing well at doing good. You could maybe throw yourself at doing good, but be very limited in your effectiveness and not accomplish much or you can be very successful but pour yourself into something that doesn't really have a lot of goodness or importance or lasting value.

And that would also not be a life well lived in my opinion. So in my mind it would be to dedicate myself to causes that are good and be effective at doing that.

Abe: If I did not have the success, but I still lived up to my own moral code... it would reflect on me to an extent, but there's also an immense amount of luck, fortune, providence, whatever you want to call it, where not everyone is going to invent something that's going to revolutionize the world, so to speak.

Abe: And you can do everything right and you still might not do that. That's okay. That's the way the world works. So I don't think it would be... I mean, again, it would be somewhat validating to have that, but I think it's a very real possibility that that won't happen and I hope that I'll be okay with that. And I think I will be more okay with that if I know I've lived a good life and in other aspects really haven't been immensely successful.

4.6 Discussion

4.6.1 Entrepreneurship as self-realisation

The progression shown by Baxter-Magolda in 3.2.2 have an equivalent in the results of this study:

1. *Trusting the internal voice* happens when entrepreneurs have decided to take on entrepreneurship, where they see themselves potentially grow within it. The benefits feel like they outweigh the costs. At that stage, external validation from e.g. investors can make the difference, because at that stage there is no internal foundation to define value from. Programmes such as Sandbox and early investors may play a key role in convincing the entrepreneurs that they are allowed to believe in themselves—they stand in for the "Support" described in Section 2.4. At that moment though, the lack of a conscious internal foundation can make the process very hard. Because the extrinsic perception is still dominating, entrepreneurs will seek to adhere to the perfect entrepreneur as an image, meaning they don't believe they are it right now.
2. *Building internal foundations* helps entrepreneurs see themselves grow in entrepreneurship, because the de-risking process starts being used on different values—one's own. Though there is no set narrative for their value in entrepreneurship just yet, there is one for entrepreneurship as a vocation—probably because they can see how it helps them build those foundations with the abundance of challenges.
3. *Securing internal commitments*, when our internal foundations become intuitive, happens when entrepreneurs have a fully formed

narrative for their purpose, and build their life around it. The startup is a tool to bring that purpose to fruition.

Many of the entrepreneurs chose that path because their previous careers were unfulfilling, or because they did not see how they could tap into their potential in another way. Entrepreneurship is truly a unique career choice. Unlike most other jobs, entrepreneurs get to decide what their work identity will be. They use this tool to discover their own identity and to share that meaning with the world.

4.6.2 *Extrinsic vs. Intrinsic, revisited*

The quotes purposefully showed a dichotomy between the extrinsic and intrinsic takes on various important concepts to the interviewees. The separations can be summarised as:

$$\text{we interpret external events as } \left\{ \begin{array}{c} \text{effects} \\ \uparrow \\ \text{causes} \end{array} \right\} \text{ of internal processes}$$

Table 4.1: Causes and effects

Emotions	caused by others → reaction is my choice
Validation	held by others → held by me
Purpose	outside → inside
Principles	set → chosen

While the extrinsic perception stops its reflection at the definition of external factors[51] as the cause of the processes of the self, the intrinsic perception sees those external factors as the effects, or consequences, of an intrinsic meaning. Value is defined across contexts, so it is also defined across the context of the self (time). The extrinsic results of success, such as being in control of one's happiness, or having a startup success, are not the object of attention. The intrinsic perception can see that those results come from the application of purpose onto life at all times. Purpose and value are salient examples of those internal processes, but emotions are also part of the mix.

The demands of entrepreneurship require this proactiveness. Creating a company is stepping into the field of the unknown and creating a meaning that will be shared and brought forth by others. Yet, with no practice perceiving intrinsically, we cannot build a value whose process of creation isn't already set.

These realisations cemented the usage of "intrinsic" and "extrinsic" in this thesis instead of their constructive-developmental equivalents. The inability of the extrinsic perception to *look into* the processes that create value (and, vice-versa, the ability of the intrinsic perception to understand the creation of value) feels more salient with these terms.

4.6.3 *Acting on purpose*

Entrepreneurship is the economically condoned pathway towards sharing meaning in today's capitalistic society. Far from the uniform

[51] such as distinctiveness or validation

personality that entrepreneurs seem to be labelled with, their justifications for engaging in this path can be myriad—including the need for recognition. In terms of handling uncertainty, though, seeking an extrinsic goal may be unsustainable, as their current situation is missing that goal for now, putting them in angst. On the other hand, the entrepreneurs who perceive their purpose intrinsically source their meaning of value from their actions. Success is simply the consequence of the repeated sourcing of that value from the self.

Beyond the many challenges to enjoy and sources of certainty to let go of, people need the support in their journey towards understanding what it means to be self-fulfilled. Many of those who chose entrepreneurship in the study did so *because* they were looking for a meaningful life, and could not imagine it in their previous situation. Yet, the personal support they receive is close to none—the stereotype of the entrepreneur leads them to believe in a relentless pursuit of success, one that can seem inescapable for the extrinsic perception that seeks to adhere to that very image of the unstopping knight in the conquest of happiness.

The lack of institutional support and the extrinsic perception that successful entrepreneurs do not stop are impediments to the growth beyond the frame of the entrepreneur. Instead, the relentlessness may actually be a decisiveness brought forth by the ability to reflect on one's purpose and value.

The intrinsic perception that we can grow in all of us can bring us the assurance that we act true to our values, simply because we can perceive those values independently of the context we are in. Instead of finding a purpose outside of ourselves, we are acting on the purpose we perceive within.

5 Conclusion

5.1 Future studies

The exploratory nature of the study, and the early stage of connection between constructive-developmental theory and entrepreneurship research, opens the door for many more questions than it answers.

- What would a similar study look like for researchers? Professors? Non-entrepreneurship-oriented students and graduates? Their purpose may not be as other-oriented as impact, but the way they build their meaning of self is just as interesting.
- What factors facilitate effective reflection? A longitudinal study, as well as an extended population, may help answer that. With reflections across people and across time, a cartography of people's unraveling of their assumptions may help struggling entrepreneurs come to new realisations about themselves more easily, and eventually more systemically[1]
- Because Sandbox is a "pre-incubator", this exploratory study had a bias towards early-stage entrepreneurs. To understand the relationship between contexts and mental demand, the subject-object interview needs to be administered to established entrepreneurs[2]. As it stands, this study cannot make any rigourous predictions as to whether a specific perception leads to a specific business outcome.
- This study did not look at the relationship between mental complexity and in-group dynamics. There are likely some major differences depending on each person's role in the team (e.g. initiatior vs. cofounder vs. employee, etc.), which did not arise here.
- The entrepreneurs were at MIT, which means they were very privileged and did not have many institutional hurdles to deal with[3]. There will likely be a greater influence of external factors in places that are not as conducive to entrepreneurship as this one[4], such as developing countries.

[1] Through e.g. the adaptation of Kegan's work on developmental organisations, [28], in entrepreneurial contexts.

[2] Issues with clients, employees, etc. may arise, adding an interpersonal/emotional dimension to the understanding of the entrepreneurial process, and possibly bringing light to the struggles that intuitively intrinsic perceptions may still be blind to.

[3] And still had many struggles with the self, which goes to show how hard it is or how supportless entrepreneurs possibly are in their personal development journey

[4] How do entrepreneurs who can't find investors in their region deal with the building of their meaning? How does that influence their reflections?

- Though interesting patterns showed up, no correlations can be made without larger samples[5]. This study provides operationalisable hypotheses that can be tested with structured questionnaires, either qualitative (with open-ended questions on the concepts tackled here) or quantitative (e.g. with choices depicting the various conceptualisations of value and purpose explicited in the previous sections).

- The coaching version of the SOI can potentially be used as its own research method in longitudinal studies for another grounded theory research, one that focuses specifically on the challenges that entrepreneurs face as they arise and what effective actions they can take to learn through them.

- Many of the claims present in Chapter 3 arose in the interviews, but the personal nature of the struggles prevented the inclusion of those excerpts in the thesis. The struggles in adapting to the novelty of the startup to the context that they are in was especially salient for people whose purpose was oriented towards changing their own minority communities. These two growths in reflections came from people whose social narrative went against part of their entrepreneurial process. It may indicate that more guided help reflection can be useful for people whose extrinsic frames define a value that goes against their internal voice, but further research is needed to understand how specific cultural frames operate against certain reflections.

[5] Albeit that would remove the grounded theory aspect that the SOI provides

5.2 *Catalysing systemic change through perceptive development*

5.2.1 *Personal support is lacking*

When I interviewed entrepreneurs, I made sure to explain how they could talk about anything that was important to them. Most of the struggles and the dilemmas that I listened to were related to the self. Their solutions, when I heard them from other entrepreneurs who had gone through similar dilemmas, was often related to a growth in perception. Even the dilemmas that were described as outside still involved the self in some way. The cofounder issues I heard, for example, all covered a conception about how one should treat others that clashed directly with the entrepreneurial decision[6].

Several people, in fact, went to MIT Sandbox's leadership to say how pertinent yet uncommon the experience of interviewing was for their self-understanding. Following the thoughts in [28], the presence of challenge and practice without support can bring ill-being and abandonment to the person being adaptively challenged. The high

[6] One's personal history had led him to believe conflict would drive people away from him. Another's assumptions about racial dynamics prevented him from asserting his leadership. From a struggle to understand why he had issues re-negotiating the terms of agreement with his co-founders, he saw that the accepted story about racial power dynamics was one where being equals was already a success. He understood how part of the issue lay in his own reluctance in his perception, both managerially and with shares.

failure rate of startups may be, then, partly explained with the lack of support in personal development[7]. A more intrinsic perception means entrepreneurs are able to believe in themselves without external validation, leading to more feelings of fulfilment and less angst in entrepreneurship. A growth in reflection also makes it more possible to see connective opportunities intuitively, thereby increasing the potential for change in society.

Most importantly when reflecting on the image that incubators and policymakers give of the entrepreneur, the extrinsic image of the successful entrepreneur, risk-loving and relentless, may instead just be a consequence of the confidence that one is acting in harmony with their intrinsic purpose. In keeping that image relevant, it makes it all the harder for entrepreneurs to let go of that frame and find their own.

Further research is needed to determine how incubators and accelerators can provide such support, and how to most effectively address the blind spots in perception that leads to abandoning entrepreneurship. Through years of practice coaching executives, Well honed tools to address the challenges that are faced in management have grown out of the theory. A similar journey awaits this theory in providing the support needed for entrepreneurs to bring change to the world.

[7] When the image of the entrepreneur is one of relentlessness, it can be exhausting. In the intrinsic perception, the dedication is not a trait anymore, it is a consequence of the acting on purpose.

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