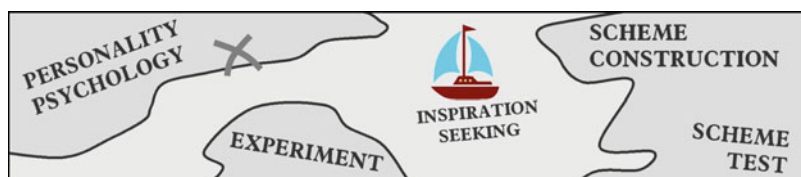


If You Want to Know Who You Are, Tell Me Where You Are: The Importance of Places

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Abstract As we manoeuvre through life we often try to predict other people's behaviors and feelings; sometimes even our own. A classical take on the matter is to refer to character traits. But there is another source of information we may tap for our predictions – highly relevant and still often overlooked: knowledge of *where* the person is. At what place? In which context?

This article invites you on a journey of thinking about and exploring the marvellous impacts of places. We will start by visiting personality psychology, attending the quest of its professionals for ever-better behavior predictions. Subsequently, we will witness an experiment on the importance of places – seeing how a place setup may propel forcefully, almost mercilessly towards innovations. We will then browse personality psychology and other fields in search of fast and easy ways to make sense of places: How are they going to affect us? Who are we going to be there? Finally, we will draw together what we have found and construct a scheme to analyze or design places – which, of course, needs to be put to the test. . .



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When James Bond enters the opera of Bregenz in *Quantum of Solace* he does not wear a suit yet. But he makes sure he gets himself one even if that means that some less known, but well-built fellow from the actor staff will have to run around naked in the short scene he is allotted in the movie.

What James Bond does so cunningly here is something we all do, all the time – even though not necessarily with the same grace: We all adapt to the places we encounter. That may happen consciously, as in cases when we pick out clothing in such a way that it matches our surroundings. Yet, more often, we adapt without specific awareness. We speak up when entering noisy places like a well-populated schoolyard or a funfair. Conversely, many of us quiet down instinctively when stepping into a church or entering a graveyard.

Imagine an encounter between two complete strangers. One of them leaves no doubt he expects the other to undress instantly. (To set the scenario apart from the Bond movies, let's envisage an unattractive male in this case.) He does not have a gun, a knife or other weapon at hand to enforce the request. Yet, the other person obeys with little reluctance. In terms of feelings, neither of the two seems particularly joyful or disgusted. The undressing person could be you. Does that sound improbable to you? Chances are, however, you do behave and feel accordingly . . . when you are at the doctor's.

Settings affect our feelings and behaviors enormously.

Our ability to adapt both our feelings and behaviors to the changing contexts we encounter is sheerly amazing! And we tend to adapt so naturally we seldom recognize the changes at all.

While that seems true for us in our everyday life, it has also been true for many professional psychologists.

The scientific discipline of personality psychology has always tried to explain and predict human behaviors and feelings. But, how should we go about it? Many professionals equipped themselves with an approach taken straight out of everyday-life. It is the approach of trying to figure out what someone's character is.

James Bond is the daredevil type, isn't he? That's why, for instance, he does not engage in long-term relationships but rather opts for changing girlfriends over time. And that's why he is going to be accompanied by varying women in forthcoming films too. (Of course, if he were a real character we'd probably limit our prediction to saying that he will try to find favour with the diverse beauties he is going to meet, while being less certain regarding the success.)

For good or bad, the character trait of being "the daredevil type" has not been at the centre of scientific personality research so far. Traits that have been accorded more attention are, for instance, extraversion vs. introversion, conscientiousness or aggressiveness.

We often try to explain and predict behaviors in terms of character traits. Is that a good idea?

When you are determined to possess a particular personality trait, generally the notion is that you have corresponding behavior tendencies more or less regardless of the particular situation you are in. If someone is found to be “of the aggressive type” we should beware that he will readily engage in disputes, be that at home, at work or at the supermarket.

But it turns out: The belief in broad-spanning traits that account for behaviors in all the diverse contexts possible, may not be entirely warranted in the end.

If aggressiveness, for instance, was a general trait, someone who tends to act aggressively at home should tend to act aggressively at work too. Whether this is actually the case and whether people do behave consistently in different contexts, is, of course, something we can study. And the issue has been studied. Indeed, it has been studied over and over again.

Mathematically, the degree of behavior consistency is commonly calculated using correlations. When a person’s behavior is perfectly consistent in different contexts the correlation takes on a value of 1. When there is no consistency, the correlation yields a value of 0.

After many decades of intense personality research all around the world it has become clear: There seems to be some kind of “ceiling value” that is hard to surpass for trait based studies on behavior consistency. This is a value of 0.3.

However, this is just the correlation coefficient. To find out what percentage of the observed behaviors are consistent across situations, the correlation value still needs to be squared. Thus, we end up with 0.09 or, to put it differently, 9%!

While this number means that people show some behavior consistency in changing situations, it also means that the consistency is not exactly sweeping. Something such as 90% or more of the behavior variance remain unexplained and unpredicted by the classical trait approach.

In 1968 the now-famous personality psychologist Walter Mischel shocked his colleagues by being very explicit about these shortcomings of classical trait theory. While many of his trait-searching colleagues tried to defend their outlook, especially at first, successive studies and meta-analyses generally confirmed the picture Mischel had outlined already in 1968.

As a consequence, personality psychologists tried to tap other sources of information that would allow them to improve their behavior predictions. In this regard, Mischel again led the way. And he led straight to the point where this chapter took off: the diverse contexts or situations people encounter. They are important predictors of behavior as well!

Character traits don’t explain why the same person often behaves differently in differing contexts.

Mischel and many of his followers were not only interested in the degree of behavior variance that could be accounted for when now looking at contexts in addition to traits. Indeed, his primary interest was something different; and again

many personality psychologists followed him. The new aim of personality research was to identify individual patterns, asking how probable a certain type of behavior was in a particular context – for a particular person.

Think of James Bond. He certainly shows a strong tendency of aggressive behavior whenever he is at the stronghold of a bad guy. Meanwhile, when Bond is with the MI6, he is somewhat more likely to act cooperatively. With Bond's antagonist, things are typically the other way round: aggression towards Bond and his fellows from the secret service, (some) cooperation with the fellow bad guys. So the average probability of aggressive behavior may well be the same for James Bond and his antagonist! A classical trait outlook on aggressiveness would thus deliver the same behavior predictions for the two. But with Mischel's approach our predictions improve because we don't adhere to overall-averages but rather look at context-and-person-specific behavior probabilities.

This chapter will take another turn. We shall not be concerned with context-specific behavior tendencies unique to some individuals. Instead, we will be looking at tendencies many people share when entering a certain context. These would be tendencies such as becoming quiet at a graveyard, speaking up on a busy schoolyard or, hopefully, much more interesting tendencies not to be thought of so easily.

Character traits don't explain why people of differing personality types often behave similarly when sharing one context.

The particular context that has been – and will be – central to our research is a very specific one. It is the context of working towards innovations. Indeed, we may even be more specific: It is the context of Design Thinking as a means to arrive at innovations, studied mainly at the d.schools in Potsdam and Stanford.

Yet, as will soon become clear, concentrating on such a specific domain does not mean you can shirk general questions, such as: What is the difference between “places”, “situations” and “contexts”? Which places (or situations or contexts) shall we regard as alike, which as different? What would be a sensible way of comparing them?



But let's start at the beginning. Or, no, let's start with a confession regarding the beginning.

At first, like the early trait psychologists – just as many of today's laypersons out in the street – our research team also considered it the most obvious approach to look at *properties of persons*, potentially teams, but *not at contexts* to explain and predict the behavior we took interest in: the devising of innovations.

In 2009 we set up an extensive experiment in which we compared teams with d.school training versus those without, as well as mono- versus multidisciplinary teams. The question was whether they would work out equally innovative solutions to the design challenge we presented them with.

Our assumption was, of course, that there would be significant differences. We assumed that multidisciplinary teams would be more innovative than monodisciplinary ones. And that d.school trained teams would be more innovative than untrained teams. It turned out these predictions failed, and quite remarkably so (von Thienen et al. 2010).

Now, there may of course be characteristics of persons (or teams) that do a solid job in explaining and predicting the behavior of interest: the production of innovations. There may also be properties of the kind which relate to d.school training or academic diversity. But we didn't hit on them. And our reaction was much the same as that of Walter Mischel when faced with the ailing predictive powers of classical trait theory. We too wondered what other sources of information we could tap to improve our predictions. And we too ended up considering contexts, or rather places, as likely candidates.

d.schools are very special places. In what ways? Dear reader, please bear with us for a moment. The issue can be quite abysmal and we shall try to provide solid grounds soon. Suffice it to say for now that d.schools *are* special places.

Working at such a special place – specifically, working at the d.school in Potsdam – was something all teams had in common in our 2009 experiment. Potentially there is something about this place that simply makes people innovative. Maybe this place is actually such a powerful facilitator of innovations that all teams, with or without d.school training, with or without academic diversity, were forcefully propelled towards the great solutions which they all did deliver at the end. Maybe that's why we couldn't find differences in favor of multidisciplinary or d.school-trained teams.

Can a place make you innovative?

So we launched a series of experiments to study the effects of places, d.schools in particular. In one of them, students of the social sciences were invited to participate in a two-day-workshop on measurement and test theory. What a dry and daunting subject! The only way we could have exacerbated the challenge would probably have been to announce Latin vocabulary and declension tasks for the breaks.

As a free-of-charge way to prepare for exams, the workshop found favor with quite a few students, who came from three different universities to the campus in Potsdam.

The workshop began like many other preparation classes in Germany, with a lecture and a test. If you feel somewhat deflated as you read this: Good. You obviously understand the situation and empathize with the participants. If you don't feel deflated yet, please begin sensing a strenuous labor now, the labor of wrestling with some unmanageable material where there seems to be a clear line between right and wrong answers, between valid and invalid proceedings. But you can only

guess where in relation to that line you manoeuvre from moment to moment. . . all the while you could have stayed at home to sleep late: It's weekend.

After the entry test, a challenge was handed out to the participants that they would work on for the rest of the weekend. The challenge was well in line with Design Thinking outlooks as it focused on human concerns. Actually, it even introduced a particular "persona", someone with individual needs, resources and limitations. That persona was Anna.

Up for a challenge?

Anna is a 16 year old girl who wonders how she comes across in different outfits. Having tried a number of hair colors and multiple clothing styles she noticed how hard it was to find out what other people really thought about her appearance. When she asked them personally, maybe some people lied because they didn't want to be offensive. Maybe some answers were meant ironically. . .

The challenge our workshop participants had to work on was to devise an approach for Anna so that she could find out what people really thought about her outfits. This could be done by taking an existing approach from measurement and test theory and applying it to Anna's concrete scenario. Or it could be done by devising a new approach, maybe tailored to Anna's particular needs, paying close attention to what was feasible for her.

Once the challenge had been given out, the group was split up so that the participants could begin to work in different places. And different they were!

In the "classroom" condition, the students were faced with a modern lecture room.

While all workshop participants remained within the same building, they now continued their work on different floors. In the "classroom" case the students did not see an old fashioned green chalk board, but its modern equivalent: two whiteboards at the front end of the room. Tables and chairs were of a common design and arranged in straight rows, facing the whiteboards – or – the place where normally a teacher stands. Apart from the lecture room there was only the hallway.

In the "d.school" condition, the students worked at a place looking somewhat like a crossover between an architect's studio and Ikea.

The first place the students would get to see as they entered the d.school was a lounge that looked somewhat like a living room: big red couches and white coffee tables, shelves with a manageable number of colorful books, boxes with loads of craft supplies and even toys.

Then, there was the workspace. It was about as big as the "classroom" on the other floor. Here, the tables and chairs were not of the conventional type. They were as high as bar counters and bar stools, so you could just as well sit or stand there. Then, there were whiteboards too, but a lot more of them, and additional craft supplies: post-its, many different colorful pen, glue sticks, scissors and the like.

In general, at the d.school the furniture is highly mobile since all the heavy equipment is installed on wheels, including the big red couches in the lounge. There is a great variety of equipment for prototyping, exercising or playing; there is lot's of technology available and team spaces are set up in such a way that groups may work actively in some sort of privacy while staying in touch with the world around them.

In both conditions the participants would work in teams about twice the size of typical d.school teams. Additionally, two "facilitators" were present on each floor. (Thus, later on there would be a way to check whether both facilitators agreed in their observations.)

It was not communicated to the participants which particular function the facilitators should serve.

Yet, in both places the participants initially expected the facilitators to act as teachers. E. g., when the students at the d.school wanted to say something they wouldn't just speak. Instead, they would raise their hands and expect the facilitators to call them. As the participants spoke, they would look at the facilitators rather than at their team mates, occasionally asking the facilitators explicitly whether what they had said was correct and admissible.

The point came when the groups had to decide what kind of an approach they wanted to prepare for Anna.

The participants wanted to be conventional.

In both places the students opted against the development of a new approach. They wanted to stick to the existing corpus of measurement and test theory – because that's what you would need to know for the exams.

To proceed in this way, the students could make use of work bags they had received. These included introductory articles as well as schemata which would guide them, step by step, through common approaches of measurement and test theory. But, it should be mentioned in passing, without being emphasized too strongly, that we had been slightly mischievous in the formulation of Anna's case. None of the existing approaches really delivered what Anna needed.

Let's focus on one condition now and see how the group fared, specifically the group at the d.school. Having picked the one approach which they wanted to apply, the d.school students equipped themselves with the corresponding step-by-step guide and started their work. Quite suddenly the two facilitators were dismissed out of their roles as lecturers. They became handymen. The new requests they'd have to work on would be things like: make sure the printer works properly, provide a laptop from which to print, dig up a camera... a camera? Yes, the students decided one of them would be Anna. And they would take pictures of her in differing outfits. (Of course, the d.school is a place where you can dress up easily as there is quite a bit of workable material around.) (Fig. 1)

As the pictures had been taken and the outfits had received a proforma-rating no one was more surprised than the students that they could not figure out how to do the final calculation of their step-by-step guide. What was wrong?

Fig. 1 A student at the d.school trying hard to avoid a smile as her team produces stimulus material: The spectator will have to judge differing clothing-styles. He is not supposed to be taken in by varying facial expressions such as a serious look in one picture, a big grin in another



Nothing was wrong. Except, in passing the students had so fundamentally altered the structure of the methodological approach which they intended to follow that there was no way back into the original scheme. They had altered the structure to deliver exactly what Anna was looking for: a feasible way of getting at people's opinions on clothing.

The d.school students were innovative despite their prior decision to be everything but!

Now what? The team was quite alarmed. In standard classes on measurement and test theory you are never asked to come up with your own approach (at least in Germany as things stand now). And there is probably a reason for that, right? Maybe it is too complicated, mere mortals are not fit for the task. Or, maybe there are no alternatives to the approaches already listed in common text books. Since

they probably yield the correct answers already, there is obviously nothing else to look for.

Being re-affirmed by their facilitators that the approach chosen for Anna was sensible, despite the fact that it had just been made up, the d.school team visibly relaxed. For a short moment, the facilitators were hoisted back into the position of teachers again: They were supposed to provide authoritative judgements of what was right or wrong, viable or illegitimate.

But then, once re-affirmed, what should the team do with their remaining time? The team finally decided they wanted to practice for the exams. They would take the scheme which they had tried to follow at the outset. But now they would truly adhere to it. They would pay closest attention to the guidelines, would make sure to proceed step by step exactly as the instruction sheet required.

Still, there was something irritating: Did that methodological approach really deliver what Anna needed? It did not! The d.school team had stumbled on a bone of contention. And they wouldn't proceed without resolving the issue. So, what to do about it?

The d.school team decided they would simply make up a new challenge. The new challenge would accommodate both Anna's interest in dressing styles and their own interest in preparing for the exams.

The d.school students iterated the challenge they worked on.

So, now, Anna focused on one particular clothing and wondered how differing people would conceive of it. Maybe it would appeal to boys in her age but not to her parents and grandparents. That might be useful to know.

With this new challenge in mind it actually made sense to apply the guidelines which the d.school team wanted to work through. And they worked them through successfully, occasionally turning to the facilitators, mainly to attain assistance with some technical details.

As the calculations had been completed the facilitators referred to the workshop agenda which scheduled a meeting with the classroom group. Everyone should meet on the ground floor and both teams should present what they had in store for Anna. So the next step was to prepare a short presentation.

The d.school students reflected for a moment, deliberated and decided: No! A short presentation at the ground floor simply did not seem to be the best way to get across what they had done. Instead of giving a presentation they would rather set up a little museum at the d.school. They would show the material they had worked with. They would show their diverse working stations which reflected differing stages of their work, including the final results. Instead of a presentation, they would offer a guided museum tour.

The d.school students changed the agenda.

What did the facilitators think about such a change? Actually, they were barely asked. At this point, neither the schedule nor the facilitators were accorded indefensible authority any longer. Their prior suggestions did not outweigh the issue of

what made the most sense under the given circumstances. And finding out what made the most sense was a matter the students felt responsible for themselves. Of course, the help of the facilitators would be appreciated none the less. They too could move around some whiteboards to help create a decent museum!

Within two workshop days the d.school students had completely altered their role behavior.

Initially, the participants at the d.school had acted as classical students: They had raised their hands, asked the facilitators for right-or-wrong judgements and made sure to equip themselves with detailed instructions which they intended to follow closely.

In the work process the d.school group became more and more autonomous, the students took on more and more responsibility. Very soon they began to monitor closely whether their proceeding was in line with Anna's needs and interests, whether it "made sense" for Anna. In the end, the students did not only monitor whether their methodological strategy made sense for the target subject, which they were supposed to focus on. They also monitored whether the workshop agenda "made sense", which no one had asked them to do, and autonomously launched corrective actions. Obviously, the students had come to monitor questions like: What is our ultimate concern? Do our proceedings make sense in that regard?

At the d.school participants became highly attuned to questions of sense making.

Now, that much said about the d.school group – what about the classroom students?

Suffice it to say that in the classroom no fundamental change was made to the structure of an existing methodological approach. Rather, a standard approach was taken and the pragmatic modalities of its application were elaborated. The students did not take offence at the fundamental mismatch between Anna's case and the methodological schemes of existing approaches that had been handed out. While the agenda was criticized (e.g., for lacking sufficient breaks and theoretical parts) it was generally followed.

In the classroom the participants maintained a student role.

They were ready to follow instructions and did not consider it their responsibility to change things for the better.

So, in this study – as in others – it seems to become clear:

The d.school makes a difference!

And the difference is big!

There are differences regarding work results, e. g. how innovative they are, but also differences on a personal level: What roles do people take on? How much self-confidence do they develop? How much responsibility do they take on? How likely are they to make changes they consider sensible? What questions do they bare in mind, what matters do they monitor as they go along?

But sure enough, studies of this kind can only be a first beginning. For one thing, replications are always appreciated, of course. And then, there is evidence for our digging in the right place now. We may want to sophisticate our digging strategy even more, such as to carve out the interesting details!

When making comparisons as in the study just reported the fact may be quite clear that places make a difference. But *what about these places* actually makes the difference? In this particular study, for instance, is the unequal height of the tables an important factor? How about the presence versus absence of couches? And the differing mobility of the furniture? There are just so many differences one might think of, including, potentially, differences in the brightness of the rooms, predominant colors, the carpet etc.

Imagine yourself as a Design Thinking researcher standing at the centre of Potsdam's d.school, a notebook in your hand. Look around and make a list of all the items that, potentially, influence how people behave and feel there! And please do not forget to include in your list the specific attributes of your items; they may be important too! So, if you think that a certain lamp may have an influence, mention its color, its height, the material it is made of, its shape and the particular light bulb that has been installed. What spectrum of light does it emit? In what angle does the light fall off? What is the degree of luminosity it creates in the room? And what does it mean for the luminosity in particular places of the room when the outside lighting conditions change in the course of the day, or when the weather conditions change?

So, please make sure your list includes all these things. Then vary each aspect that may have an influence. And carry out an experiment, or two (you know, replications are important!), to find out about potential influences of that aspect regarding people's behaviors and feelings.

Now, of course, that may be a bit of work. But just imagine: Once you are done, you may have something quite valuable to offer. You can present a long – a very long table – naming all the different factors that you have varied and the corresponding behavior or sentiment changes you observed. Then someone who wants to design a place can take a look at your table. He may specify what behaviors or feelings would be valuable in his place. There, he could realize exactly those factors in your list that have been associated with the favored behaviors and feelings in your studies.

Wouldn't that be a wonderful way of designing places that exert favorable influences? Of course, the designer won't know if the diverse factors listed in your table actually have these favorable influences in his place, because there they are installed *together*. In your experiments, most of them have been tested separately; the overall interactions have not been looked at yet. But that is a minute drawback, isn't it?

Well, we hope you agree with us that a conventional research strategy of designing experiments to test the impacts of singular factors is not going to bring us forward within reasonable time. And the kind of result it would get us after strenuous labor does not seem all that helpful either.

We need a shortcut that allows us to analyze places efficiently!



If we want to study places sensibly, we have to get beyond unmanageable lists of variables. We need something that *brings order* into the vast multiplicity of potentially important aspects. We need a strategy to make sense of them!

When looking for practical advice, such a strategy might well be helpful too. If we can come up with good enough schemes or rules of thumb, maybe it won't be necessary to work through all possible factor-combinations any more to decide what to put in a room. Because, maybe, we'll be pretty good at telling in advance what will work and what will not!

Of course, there are certainly interior designers who have such a good *intuition*, they can tell in advance how particular places need to be designed to bring about this or that favorable effect. And they don't need a scheme.

But, we are in a scientific research program! What we want is something explicit and systematic. It should serve the democratizing function of allowing basically *everyone* to arrive at sensible predictions regarding the propulsive forces of places.

It looks like we have stumbled onto quite a job!

TASK *We could use a scheme that helps to predict how people are going to act and feel at a place.*

A scheme, what could that be? Well, it may include rules of thumb. It needs to provide strategies of analyzing and comparing places. And it should yield predictions regarding the effects of potential future room setups – so that we may pick a good one to be installed in practice. Generally, we are looking for a strategy almost anyone could apply to design places with favorable influences on feelings and actions.

But how should we go about it? Let's keep the challenge in mind and go out exploring a bit. We need inspiration! What is out there already? What can we borrow and learn from?

Obviously there are professions where people need to estimate in advance how place setups will affect their users. Interior design may be a good example. So, let's turn there first. . .

Welcome to the world of interior design.

Here is, for instance, a piece of strategic advice given by the design professional Beverly Murphy.

When I begin working with a design client, the first thing I recommend is that they look through as many design magazines as they can. I ask that as they do this, they tear out the pages showing rooms they love and details they like. These tear sheets could illustrate things as diverse as a fabric design, the way a built-in bookcase is constructed, or a piece of furniture that especially appeals to them. As they do this a pattern develops that shows both the client and me the style the client likes best.

(Murphy 2005 p. 1)

Murphy suggests two levels of analysis. On a first level, we stick to the details: fabric design, construction details, single pieces of furniture and so on.

Now, we have considered the option of working at this level of detail before. If we were to mount a research program on the effects of places at this level of detail, we'd have some good news to announce: Soon, all around the world involuntary unemployment will be no issue anymore!

INSIGHT To analyze places efficiently, we need abstract categories.

In a second step, Murphy brings in the abstractions and categorizations she needs as much as we do. Her suggestion is to sort according to styles. Thus, two things as different as a fabric and a piece of furniture may go in one category if only they reflect the same style.

That will help with the issue of feasibility. Yet, for our project there is a disadvantage: People prefer different styles. So we will hardly arrive at the more general recommendations that would be particularly helpful in our context – such as: If you want people to feel more positively at a place, design it in this particular style!

Again, there is something to take away from the attempt: Obviously the design of objects (such as their particular style) does not take us straight where we want to go. After all, we are interested in behaviors and feelings.

INSIGHT In our context, rather than focusing on design proper, we need to get at psychological significance.

So, while we will miss out on the richness of interior design, time presses on and we do have an idea where to turn next. As it happens, the roads of our little journey converge once more and take us back to the point where the chapter took off:

There is this prospering scientific discipline of personality psychology where experts all around the world work hard to provide ever-better behavior predictions. Shouldn't they have something on offer for us? What categories do they work with as they provide behavior predictions?

Welcome back to the world of personality psychology!

First of all, there are traits. But recall Mischel and his take on the classical trait theory! Traits hardly account for 10% of the behavior variance that there is. And for our purpose, that is actually good news!

We couldn't exert any influence on people's behaviors and feelings by setting up places in smart ways if their behavior was predetermined by their characters anyway.

Or, maybe that is not completely true. One option would remain: We might set up places that change people's character traits upon entry. Then, people might act according to their traits but still be influenced by our spatial setups.

Yet, character traits are said to be very stable. So, our prospects for immediate success wouldn't seem too good. But they don't have to be either. After all, traits *do not* determine how people behave.

So, what else is a predictor – and potentially a shaper – of behaviors and feelings? What else has psychology on offer?

Indeed, once traits were given up as ultimate predictors, personality psychologists introduced a second category of analysis: situations! And the couple of “traits” plus “situations” is actually what they work with up to this day. It turned out to deliver quite valuable predictions.

Given our interest in place analyses, traits don't seem to take us anywhere. But situations might actually do the trick for us!

Maybe we arrive at an illuminating analysis of places if we focus on “SITUATIONS” as the central category of analysis.

The interior designer Beverly Murphy used “style-boxes” to sort material stuff (despite all the pluralistic details that there are) into a manageable number of abstract categories. Maybe it is a good idea for us to do the same. Except, we don't use “style-boxes” for our analysis, but “situation boxes”.

At first sight, situations seems pretty remote from places. (So why should they be of help in a place-analysis?) But that is only a cursory view. Just think about it!

The situation of “having to stop at a red traffic light” typically comes about at a red traffic light. The situation of “buying something in a grocery store” occurs in a grocery store. And the situation of “enjoying cake and coffee in a café” clearly takes place in a café.

While there need not be a one-to-one correspondence between places and situations, there are obvious regularities. It is in no way accidental what situations occur in which places. After all: If there is no café around, you can't get yourself into the situation of sitting in one, enjoying cake and coffee there.

Frequently in life, certain situations come about in the same kinds of places, again and again. For most of us, that is the case at school. We are taught in conventional classrooms where we are basically expected to absorb whatever the curriculum happens to dish up. For familiar settings like these we have our familiar role repertoires, including behaviors and feelings. And we may be very ready to access them when cued by our surroundings.

Recently, we accompanied a group of students who spent two days working on measurement and test theory. The participants got started in a context they were highly familiar with: Seated in an orthodox lecture hall (place), they listened to a talk (first situation) and took an exam (second situation). Sure enough they found their way into the roles of classical students!

Now, in this first phase of the workshop the situations (of lecturing and testing) might have been more important activators of student-role-behavior than the place

(the orthodox lecture hall). We don't know. But after the first introductory round the students were brought into the same kind of situation. The only thing that differed then was the place. One place (the classroom) looked like a familiar school setting. The other place (the d.school) looked nothing like it. In the first place, people retained their classical student-role behavior. In the second place, people acquired alternatives. So, obviously:

Places cue us into particular roles (behaviors and feelings).

It certainly makes sense for people to scan their surroundings for cues to figure out what behavior (or feeling) will be appropriate. Misjudgements in that regard may have quite unfavorable consequences. Just imagine someone who failed to recognize that he should have turned around before crossing the motorway.

Whenever a particular place setup (e. g., a major street ahead) typically comes along with a certain situation (e. g., cars coming from the side), it is reasonable to use the place setup as an immediate cue. Thus, we may hold ourselves ready for the kinds of behavior that are commonly appropriate in the corresponding situation (e. g., turning around, checking if a car is coming).

Places may have a signalling effect, telling the person: “Hey, you enter this kind of a situation. Behave accordingly!”

Our journey has taken us around quite a bit. We've visited interior design and personality psychology, in search of inspiration. And we did hit on something that seemed promising: a category of analysis that helps with behavior predictions, namely “situations”. Let's take home what we found to see what we can do with it.

At home a major challenge awaits us. We want to build a scheme that will help to analyze and predict the propulsive forces of places. We wish to skip the Sisyphus task of experimenting with tiny aspects of places. What we look for is a shortcut, yielding reasonably good answers to the question: How are people going to feel and behave in a particular setup?



Let's design a scheme to analyze the propulsive forces of places!

To warm up, we may look for rules of thumb first, before trying our hand at being truly systematic.

Indeed, it looks like we need little more than the good old and well established rules of association learning to merge the material we brought home into two decent rules of thumb.

Place	Situation	Material indicators	Behavior	Feeling
<i>What place do you look at?</i>	<i>What situation do you look at?</i>	<i>Which things are typically around? (In which arrangement?)</i>	<i>What behavior is likely in this situation?</i>	<i>What feeling is likely in this situation?</i>

Fig. 2 A Place-Situation-Analysis (PSA)

1. RULE OF THUMB When equipping places: What to put in?

Put in things that are typically around in places/situations where people act and feel favorably.

2. RULE OF THUMB When equipping places: What to leave out?

Leave out things that are typically around in places/situations where people act and feel unfavorably.

And how about a systematic approach?

Well, let's draw together the categories that seemed promising in our research phase. Figure 2 gives an overview.

So, here we have a scheme. And it is quite obvious how we could use it as a shortcut when assessing places.

ANALYSIS *If you want to analyze a place and predict people's behaviors or feelings...*

try to identify material indicators. Watch out for room arrangements that typically come along with certain situations. Predict whatever behaviors and feelings are common in those situations.

DESIGN *If you want to design a place, optimizing its propulsive forces...*

ask yourself, what particular behaviors and feelings you want to support. Think of (other) places and situations where these behaviors and feelings are likely. Investigate them. How are they equipped? What is typical? What may be a decent speciality of a single place? Use these model-places as sources of inspiration for the arrangements in your place.

Some Technical Details for the Nerdish Minds

How do places, situations and contexts relate to one another?

A **place** is, loosely speaking, what you can identify on Google maps. It's a concrete location which you might mark with a flag. Or you could draw a line around it to distinguish it from adjacent places. Of course, these lines may have a pragmatic character at times. Maybe you want to mark the outer border of the garden where James Bond recovers in *Casino Royale*. Does a particular blade of grass at the fringe still belong to the garden or is it already exterior to it? You may just have to make a decision.

A *situation* is what’s going on at a place – insofar as it is brought under some label, construed in a particular way. When you consider something as a particular situation you typify it. Looking at Bond and his girlfriend in the garden of *Casino Royale*, we have a situation of recovery from bodily harm, but also a declaration of love, a situation of harmony – whatever aspect you wish to stress.

If the term “**context**” is to be charged with a particular meaning here too, it probably makes sense to use it as a super ordinate concept such that it refers to combinations of places and situations. Thus, ask yourself in what context you would find yourself if, all of the sudden, you were Bond (at that moment just mentioned). The immediate context would be: a garden and a situation of love confessions. If that “context” is too narrow for your taste, bring in the bigger picture by giving a more comprehensive description of Bond’s situation.



So, we have constructed a scheme. We should put it to a test.

TEST *Does the scheme allow us to make sense of the ways people act and feel at a certain place?*

Having spent so much time looking at the d.school, it seems quite clear which particular place we should make our immediate test case. To apply the scheme, there are blanks to fill in the table.

Much has been said about *behaviors* at the d.school. Recently, we saw how the participants of a workshop behaved as they studied measurement and test theory. In just two days, participants working at the d.school completely altered their role behavior, while participants in a classroom maintained their initial student-roles.

But what about *feelings*? Or *situations*?

To fill in the blanks and see how our scheme fares, let’s voyage a final time – to a place where we can find out more.

We are at the d.school of Stanford in the fall of 2010 now, at a meeting of Stanford’s and Potsdam’s Design Thinking research teams.

Major experts of the field are around and willing to think about places, d.schools in particular. Individually, the attendees consider a couple of questions on the matter and put down their personal answers on sheets of paper. Generously, these sheets are left at our disposal.

One question out in the room is this:

FEEL ALIKES “What locations other than the d.School elicit a similar feeling? How do you feel there?”

Even though the attendees consider this question individually, their answers show a remarkable congruence. One might even get the idea someone was cheating. . . unless, of course, the answers are obvious.

The top three *Feel-Alike-Contexts* named by the attendees at the research meeting are these:

Home

Café

Playground or Kindergarten

Interestingly, the attendees regularly specify situations too even though they are asked for locations only. Obviously, the situations seem crucial.

But looking at the different locations named, situations are not specified equally often, e. g. no particular situations are mentioned regarding the playground. Probably, that’s because it is obvious what situation is meant at the playground: playing!

But almost everyone who mentions “home” adds a certain situation he thinks of. When referring to this place, clearly it is not obvious what situation one has in mind. It may be working, watching news, having breakfast etc.

Regarding “home”, you bet the situation people associate with a d.school-type-feeling is not “asleep in bed”. Rather, people write things like: doing something with friends in the living room – having a dinner party with friends – cooking with friends etc.

Obviously, (1) *friends or classmates* and (2) some kind of *open-creative activity* without a precisely specified goal are essential ingredients for the d.school-type-feeling. Also, the situations named are frequently (3) of the *unofficial* type.

But what kind of a feeling are we talking about?

“Energetic and engaged”, one attendee answers. Most of us would probably agree that she truly hits the mark (Fig. 3).

Everyone who has ever been to a d.school will instantly recognize a pattern when looking at figure 3.

Things that are typical of Feel-Alike-Places are also present at the d.school.

There are the couches and coffee tables we know from our living rooms, there are toys and craft supplies like in kindergarten, there are little groups of tables and chairs as in a café, and there is food.

Well, but we do have to admit, of course, that there is a lot of stuff at the d.school anyway. Maybe we find all those material indicators of Feel-Alike Places at the d.school simply because we find material indicators for basically any kind of place or situation there.

So, let’s do the test. Having looked at *Feel-Alikes* of the d.school let’s try the other way round too and ask for *Anti-Spaces*!

Place	Situation	Material indicators	Behavior	Feeling
<i>What place do you look at?</i>	<i>What situation do you look at?</i>	<i>Which things are typically around? (In which arrangement?)</i>	<i>What behavior is likely in this situation?</i>	<i>What feeling is likely in this situation?</i>
Home	in living room with friends	coaches, coffee tables, a manageable number of books, ...	cooperation, conversation/exchange, being creative,...	energetic, engaged, safe, relaxed, free, curious...
	cooking with friends	kitchen, food...	"	"
Café	chatting with friends	tables and chairs arranged in small groups; coffee...	conversation/exchange,...	relaxed, interested,...
Playground/ Kindergarten	playing with mates	toys, craft supplies, colorful and mobile stuff,...	being creative, trying out something new, playing,...	free, curious, engaged...

Fig. 3 A Place-Situation-Analysis (PSA) on Feel-Alikes of the d.school

What would that be? Well, having said that the d.school is a place where a certain behavior is considered favorable (being innovative, working cooperatively. . .), the *Anti-Space* is a place that makes this favorable behavior highly improbable.

Here is the open question for our Design Thinking researcher colleagues to consider. . .

ANTI SPACES *“What location (already existing or not) makes it difficult to live Design Thinking?”*

Once more, the answers given by the attendees of the Stanford workshop are highly concordant. Here are the top three:

- Prison**
- Conventional classroom/office/cubicle**
- Library**

Clearly, a prison instantiates the opposite of freedom. It is characterized by locked doors and scarcity. You can’t delve into the world to experience first-hand what there is and what it’s like. In terms of feelings, boredom and a lack of joy are going to figure prominently among them.

In conventional classrooms and offices, there is typically a clear hierarchy: The boss or teacher tells you what to do. He decides what is right or wrong, viable or inadmissible. As one attendee points out, in a classroom or lecture hall you are also quite likely to encounter a situation where your teacher acts as a “95%-of-the-time-talker”. In any case, others have little to say, no communication on equal grounds, no mutual learning. Typical feelings would be: bored, unengaged or simply bothered.

Place	Situation	Material indicators	Behavior	Feeling
<i>What place do you look at?</i>	<i>What situation do you look at?</i>	<i>Which things are typically around? (In which arrangement?)</i>	<i>What behavior is likely in this situation?</i>	<i>What feeling is likely in this situation?</i>
Prison	being held captive	locked doors, bars, material scarcity	ever the same, restricted routines	no joy, bored
Classroom	being taught	tables in straight rows, chairs all facing the front end	obedient, passive, reserved	bored, unengaged, plagued
Library	studying, doing research	an unmanageable number of books	shutting up, working alone, taking in second-hand knowledge	lack of feelings

Fig. 4 A Place-Situation-Analysis (PSA) on Anti-Spaces of the d.school

What about the library? First of all, it is a place where you are required to shut up which also means that you typically work alone, since you are not supposed to speak much. And, once again: You don't go out into the world to experience it first hand. Rather, you take in second hand knowledge: what the authors tell you they observed, what they tell you is right. Since knowledge is transmitted in language, the original experiences of the authors have already been predigested by them and are now served in manageable language-boxes. In terms of feelings, we have what could be described as a blatant lack of feelings! (Fig. 4)

When now comparing the Anti-Spaces with the d.school, again a clear pattern emerges. And guess what?

Things that are typical of Anti-Spaces are left out at the d.school!

Despite the fact that the d.school is so pluralistic in its design, the material indicators of Anti-Spaces are actually *lacking* at the d.school!

Instead of locked doors that shut you off in a prison, at the d.school you find walls particularly designed to be most permeable: They are moveable and consist of holes rather than of wall-material (Fig. 5).

In contrast to the prison scarcity you'll find colorful stuff and craft supply everywhere.

Then, there are no tables arranged in straight rows, facing some "teacher's place" at the front end of a room – as in conventional classrooms. Neither are there endless bookshelves filling room after room, as in libraries. Of course, there are no "be-quiet-signs" either.

So it looks like we can actually make sense of the way people behave and feel at a place, like at the d.school, by searching the setup for its situation indicators. And if this is a workable shortcut that saves us from the Sisyphus job of varying every detail when analyzing places, we may just as well use the spare time won: Grab your favorite jacket, be on the look out for a café or playground or any other location that makes you feel comfortable and let the issue of places linger a little.

What to take away from the journey we just finished? Well, if nothing else, take away this: There is a regard in which it is perfectly true to say. . .



Fig. 5 Walls at the d.school in Stanford: They are designed to be mobile and most permeable, consisting of holes rather than wall

We are all James Bonds!

Because even James Bond allows the places he enters to strongly influence his behaviors and temper. Like him, we all accord our surrounding an enormous impact on how we behave and feel.

But that does not mean we are completely at the mercy of whatever happens to surround us. People are designers! We may design places so that they suit our needs and wishes.

Hopefully, we have whetted your appetite for looking at places anew – at best: monitoring issues that you haven’t accorded as much attention before. And, maybe, you’ll even try your hand at shaping the propulsive forces of places that matter to you.

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