



AN INDELIBLE MARK
ON THE LANDSCAPE OF MY THOUGHTS
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The *Wissenschaftskolleg zu Berlin* is a setting that defies imagination. Unless you have stepped into it and spent a reasonable time within its walls, it is hard to capture in your mind.

I arrived in Berlin on the very last weekend of September. The weeks prior to my arrival had been frantic. I had planned to finalise projects and bring to an end various writing obligations before my departure, so as to start my residency free of thoughts other than the project I had chosen to carry out there. Proofs to check, an article to finish, a review to submit and an inundation of DNA samples to genotype. Mouse behavioural tests to run.

Perhaps because of this final rush, I arrived in Berlin tired, with a bit of a cold, and made use of the few days before the official start to get better and settle in. I had been impatiently looking forward to what I considered a once-in-a-lifetime new adventure. I had waited to be absorbed by the Berlin autumn, reconcile myself with memories of Germany from the five years I had spent in the country when I was in graduate school in Heidelberg, and dive into wild intellectual exchange with my new fellow Fellows. *Große Vorfreude*.

Once in Grunewald, some of the images I had built up in my mind suddenly materialised. The quietness, the red shadings above and below, the lakes and the bicycle paths matched my expectations. I inaugurated the stay by marking my new Sunday walk in the newly discovered woods. For the following three months, those surroundings were going to be my thinking shell.

K3 in the Weiße Villa was my new home, with the largest kitchen I have ever had. What I certainly did not imagine was that I was going to live on the top of that beautiful villa alone. No sign of any other human being on the weekend. Very conducive to concentration.

Then came the first lunch. Who shall I sit with? I know nobody, but I have read almost everyone's project description.

I am the third "Society in Science – Branco Weiss Fellow" to be admitted to the Kolleg. I explain to the Fellows at my table that the fellowship programme I belong to is intended for young researchers from the life sciences, who – as part of their scientific research – want to challenge disciplinary boundaries and extend their scientific and personal perspectives by incorporating novel social and cultural aspects into their work.

We go deeper than that. I have a chance to say that I work in the field of behavioural genetics. More specifically, I am conducting research devoted to the unravelling of gene-environment interactions underlying behaviour, with a special focus on anxiety, and to the analysis of the existing feedback-loop dynamics between behavioural genetics and a medicalising society, which are reinforced by the escalating consumption of psychopharmacological drugs.

Wiko is a place where my otherwise unusual and hybrid background is not regarded as such. Very comforting. On Wallotstraße it is accepted as orthodoxy to stem from one discipline and find oneself at the border with neighbouring disciplines or with unexplored fields.

Throughout its buildings, in the *Kolloquiumraum*, in the library, and especially amidst the fragrances of the *Speisesaal*, knowledge fluidly floats in the air, and it does not matter

where it comes from or what discipline produced it. There are no entrenchments in one's own field. Ideas and concepts transmute, surprise you in various disguises, and come in different recipes.

So, for the time to follow, anxiety was going to be simultaneously and legitimately physiological and clinical, genetic and molecular, environmental and existential, global and personal. Telling that I work on anxiety immediately establishes a bond with a lot of people, because even if, in and of itself, anxiety eludes precise and univocal definitions, each and every one of us seems to have firm knowledge of the experience of this condition and is ready to share it with others.

Very soon I came to realise that I was the youngest Fellow. Not only that. I was indeed the youngest Fellow ever visiting the *Kolleg*. This realisation exerted some kind of pressure on me, not a negligible one. And I felt so privileged to be surrounded by a group of immensely knowledgeable individuals and be able to enjoy their company and generous conversation.

The one thing I had been told about life on Wallotstraße was the common lunches, and I was encouraged to take full advantage of those. Indeed, conviviality takes a distinctly elegant form at the *Kolleg*. At the tables, time is not wasted talking about the weather. There was mainly one not-strictly scientific topic you could often hear of in the room and that was opera. At a high level.

Otherwise, the midday recreational break is crucial for the enrichment of your day. It can make you leap forward or arrest you and send you into deeper reflection. Meals are occasions where knots in the filament of your thinking can be shared with commensals and resolved, or where whatever you were convinced was a linear argument can indeed suddenly reveal itself as a stubbornly entangled thread. They are spaces of invention, parentheses of inspiration.

Lunch was not the only occasion for a good thought exchange. Some of the Fellows preferred to have their brain food at breakfast, occasionally inspired by the headlines of a newspaper. I was myself a regular visitor of the breakfast buffet – the fresh *Brötchen* and the yoghurt were not to be missed. If you were sluggish and still sleepy, conversation would quickly make you alert. I remember the most demanding early morning conversation involved explaining how to attempt to measure levels of anxiety in a mouse. For non-experts in the field, the mere idea of measuring such a complex phenomenon in a rodent sounds impossible.

Indeed, even for people working in behavioural genetics, anxiety is an ambiguous phenotype that is hard to measure. Importantly, even if anxiety is a universal functionality of the body, the contexts in which it is experienced, the interpretations of its meanings and the responses to it are influenced by historical contingencies, cultural permutations and practices of a given time, especially medicalisation forces.

While at Wiko, I brushed up on the history of the conceptualisation of this condition and of its diagnostic classification, with special attention to the most recent contribution of neuroscience. I came to realise that, from a neuroscience perspective, the current clinical categories of anxiety disorders, which are based on symptoms and not aetiology or treatment responses, are not a useful tool for the assessment of an anxious phenotype. A more suitable alternative to a dichotomous classification is a dimensional approach, or a “spectrum” approach, in which mental distress is assessed on a continuum scale, with individuals falling within a range and with no cut-off points to designate those with or without a presumed illness.

Because of its diverse manifestations, it remains difficult to distinguish between normal and pathological anxiety (and to set boundaries for clinical intervention and treatment). In light of this difficult distinction, a non-categorical assessment is a more apt approach, as it is not a black-or-white decision, but describes behavioural shadings of individuals. It lets an individual be seen from more perspectives and as more than a cluster of symptoms listed on a manual page, thereby reducing the tendency to pigeonhole people.

According to recent epidemiological studies, as many as 30% of adults will suffer from one of the seven forms of anxiety. This high figure may make us think that we are more anxious now than we used to be or that we live in an “age of anxiety”. However, the contemporary high prevalence of anxiety disorders is not a reflection of a decline of the normative strategies our bodies employ to face life, but maybe a change in the stressors against which these strategies are exercised or an accentuation of the medicalisation conditions that render anxious behaviours pathological, undesirable and worthy of pharmacological treatment.

Each period in history has manifested its own forms of different, but equally disruptive stressors and turmoil. All modern Western societies seem to have been afflicted with the same dismal and frustrating experience of anxiety. Contemporary threats and stressors are comparable to those that were responsible for the onset of neurosis or neurasthenia in the 19th century. What seems to count more in the rise of anxiety prevalence are medicalising conditions, and most importantly, the availability of anti-anxiety drugs.

From the 1950s through the 1970s, the minor tranquillisers radically turned ordinary problems of living into medical conditions. Since the end of the 1980s, selective serotonin re-uptake inhibitors (SSRIs) have extended and intensified the medicalisation process and opened up new avenues for intervention.

I examined the spectacle of advertisements for both the old and new class of medications. In these images, drugs offered promises to overcome worries arising from a variety of everyday hurdles and difficulties in social or interpersonal contexts. The situations and characters portrayed are comparable across adverts for the two types of medications and contribute to the reinforcement of a negative connotation for the behaviours the promoted drugs are supposed to alter or abolish. In both cases, mild or circumstantial anxiety is depicted as an undesirable mind state that should be left behind, a view that clashes with praised social norms of self-sufficiency, productivity, initiative and self-realisation. In some respects, the dynamics of medicalisation have remained unchanged.

However, a crucial change in the set of advertisements for SSRIs is the increasing and explicit reference to the biochemical underpinnings of the drugs' mode of action and of the behaviour they work upon. Indeed, the transition from one type of drugs to the other followed a marked increase in knowledge of the biological components of this complex behaviour and momentous shifts in its conceptualisation and classification. Advertisements for early anti-anxiety drugs bore psychoanalytic references to the origins and causes of the distress to overcome. Of course, they were acting on the body, but they were operating on the resolution of conflicts and troubles with powerful environmental elements and whose neuroanatomical residence was only starting to be localised. Quite differently, images and statements in advertisements for SSRIs underline a biochemical explanation for mental disorders, favouring faulty functioning of genes, molecules and cells as the basis for their occurrence and manifestation, and obscuring context- and environment-dependent contributions. Anxiety is simplistically portrayed as a reduction of serotonin in the synapses. This has consequences for the recruitment of more and more individuals into a way of living in which personal problems and interpersonal relationships are understood in chemical terms and mastered through the ingestion of drugs. To date, however, there is no proven or definite correspondence between levels of neurotransmitters and mental disorders, and ongoing work aimed at resolving this question remains contradictory. Indeed, evidence – also coming from the lab where I work – actually suggests that an excess of serotonin, rather than a deficit, is responsible for the manifestation of anxious behaviours.

Failing to distinguish between contextual or environmentally elicited disturbances, responding to stress or hardship, and dysfunctional states that persist beyond exposure to stress will probably maintain the disease confusion and over-diagnosis regimen that pharmaceutical companies have exploited and encouraged.

Unbridled use of anti-anxiety drugs will not decline until we can overcome medicalisation forces and select for the most severe forms of anxiety. And this will probably not happen until we incorporate into research a clearer appreciation of the set of socio-economic, familial and cultural reasons for distress, resist disease fashions and set a much higher threshold for *bona fide* pathology.

My three months at Wiko until December went way too fast. Not only was Wiko a congenial environment to concentrate on the work I had planned to undertake, it was also a rich source of inspiration to delineate future prospects and to generate new ideas to take back with me. It gave me the chance to cultivate, in the most appropriate of settings, a “heterologous knowledge” at the boundaries between neighbouring disciplines, rather than at the centre of well-defined areas of knowledge. Wiko opens all those paths that, prior to your time there, had always appeared foggy and impenetrable.

After leaving, for a while I craved for the same daily dose of stimuli and inspiration. Wiko leaves a mark on you and the very meaningful intellectual and personal bonds with all the other very special Fellows and staff members will last for a very long time.