Is Fear Good for You?

A review of A. V. Horwitz and J. C. Wakefield, *All We Have to Fear: Psychiatry’s Transformation of Natural Anxieties into Mental Disorders*. Oxford University Press: New York, 2012, 304 pp., US$29.95, ISBN # 978-0-19-979375-4 (hardcover).

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After writing the highly acclaimed *The Loss of Sadness: How Psychiatry Transformed Sorrow Into Depressive Disorder* (2007), Horwitz and Wakefield have now written a book about anxiety disorders with a similar theme, namely that anxiety symptoms are too often classified as a disorder or disease and that referring to evolutionary theory is useful for rectifying this. The authors describe anxiety as a naturally designed emotion (p. ix), which enhanced survival in ancestors. Feeling anxious is often a healthy response to a difficult situation and not a sign that there is something wrong in one’s brain. This is not particularly controversial, but it is far more complicated to use evolutionary theory for establishing the difference between disorder and normal functioning than the authors assume, as I will explain in this review.

The authors introduce the topic in chapter 1, *The Puzzle of Anxiety Disorders*. They explain how, according to the literature, the incidence of anxiety disorders has increased dramatically from an estimated 2-4% in 1980 to an empirically established 49.5% in 2010. This increase is at least partially explained by the different methodology in epidemiological studies. Most studies asked what kind of problems people had in the past and then between 25% and 33% of the population reported symptoms of an anxiety disorder from memory. In a prospective study, whereby participants were assessed every three years, the incidence increased to 49.5% (Moffitt et al., 2010). However, broad criteria for anxiety disorder are used in these studies and Horwitz and Wakefield question this. In the rest of the chapter the authors’ signpost to their main argument that feeling anxious is often an appropriate response and not a disorder.

One of the authors, Wakefield, developed a definition of disorder years ago. According to him a disorder is a harmful failure of mechanisms to perform the functions they were biologically designed to do (Wakefield, 1992). In order to be suffering from a disorder, two requirements have to be fulfilled: The condition has to be harmful and the condition has to be caused by the breakdown of a function, which has been selected for in the past. The rationale behind this definition is clarified in Chapter 2, *An Evolutionary*
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**Approach to Normal and Pathological Anxiety.** The authors start with ruling out various alternatives to Wakefield’s definition. Differences in brain functioning as demonstrated by, for example, fMRI-scans cannot be a criterion for disorder because there is no difference in fMRI-scans between pathological and normal anxiety, i.e., a level of anxiety appropriate to the circumstances. Everybody should get anxious standing in front of a dangerous snake. Similarly, both normal and pathological anxiety can be learned, both normal and pathological anxiety can be constructed by societies as negative events, both normal and pathological anxiety can be outside the normal statistical range, and both normal and pathological anxiety can cause social impairment.

Wakefield and Horwitz argued that there can only be a disorder if an individual’s internal processes are not performing the functions they were biologically designed to perform. We are no longer living in the EEA (environment of evolutionary adaptedness) and there are many things we no longer need to avoid such as spiders, darkness, open spaces, etc. If we are becoming anxious in those conditions, there is no disorder or illness, as our brains are performing a function they were selected for. The authors also mention that there are cultural and individual differences in anxiety and these differences have at least partially been selected for. Different levels of anxiety can be equally adaptive as people can find different niches, and it can also be advantageous for a population to have variation in anxiety proneness because a different level of anxiety might be more adaptive in the future.

In Chapter 3, *Normal, Pathological and Mismatched Anxiousness*, the authors further explore the differences between normal and pathological anxiety. They emphasized that the boundary between normal and pathological is not always clear, like there is no clear boundary between child and adult. The authors repeated that mismatched anxiety is not a disorder and mentioned the analogy with taste preferences for fat and sugar. This taste preference has been selected for and can cause obesity and early death in societies with plenty of sweets available, but it is not a disorder according to Wakefield’s definition. The authors further explain that anxiety can even be not pathological in situations when there is no danger either currently or in the EEA, because anxiety functions according to the smoke detector principle. Similar to a smoke detector, it is better to give a number of false alarms than not to notice something dangerous once (Nesse, 2005).

In Chapter 4, *A Short History of Anxiety and its Disorders*, the authors explain that anxiety as a phenomenon was recognized at least since the ancient Greek civilization, but it was not considered a separate disorder. Maudsley, for example, classified phobias as a subtype of melancholic disorders. Freud made a distinction between realistic anxiety and anxiety neurosis, whereby realistic anxiety could be divided into primary anxiety (in which somebody experiences fear because of the actual situation) and signal anxiety (in which something threatening might happen in the future). The authors are following Freud in thinking that both realistic and neurotic anxiety can have the same symptoms and the same amount of distress. The context has to be taken into account, if one wants to make the distinction between disorder and normal experience. Horwitz and Wakefield explained that classification systems in psychiatry have tried to clarify whether symptoms are contextually appropriate or not. The Feigner criteria used patients’ own beliefs about reasonableness as the distinction between normal and pathological anxiety. The American classification
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system DSM mentioned objective contextual standards as well.

How to classify anxiety disorders is further discussed in Chapter 5, *The Validity of the DSM Diagnostic Criteria for Anxiety Disorders*. The authors mention various attempts to delineate pathological anxiety from normal anxiety, with specific phobias, social phobia, and generalized anxiety disorder as examples. Attempts in terms of intensity, number, and duration of symptoms were unsuccessful and one tried to add criteria as unreasonableness given the context or clinical significance. The authors claim that the current threshold for disorder is far too low and that too many people are considered suffering from an anxiety disorder. They suggest some improvements, such as narrowing role impairment to dysfunction in activities that have been selected for. For example, social phobia is a disorder if it stops somebody having intimate relationships, but it should not be a disorder if somebody only has difficulties with speaking in public.

In chapter 6, *Fear and Anxiety in the Community*, the authors explain how the criteria from the DSM-IV and other classification systems which were already too broad were also applied in rather loose way, for example by using a scale designed as a first stage screening instrument as a stand-alone assessment. Horwitz and Wakefield are particularly critical of asking people whether they were anxious when they were young. According to the authors, many anxieties in childhood disappear and one should not call them disorders. The authors also disapprove of using screening instruments after disasters, such as Hurricane Katrina, because screening scales measure symptoms and do not take the context into account. On page 167 they state “...in the attempt to create a scientific approach to psychiatric disorder, psychiatry is instead coming perilously close to transforming itself into a pseudoscience that has rendered its own domain of mental disorder meaninglessly broad.”

Post-traumatic stress disorder only entered official psychiatric classification systems after 1980 as the authors explain in Chapter 7, *PTSD*, but nowadays many people claim to be suffering from it and health professionals specialize in treating PTSD. Horwitz and Wakefield argued that during evolution humans must have dealt with horrific and shocking experiences. They must have learnt to avoid them, if possible. Having intrusive memories – one of the key symptoms of PTSD – might well have been helpful in doing this. The authors express again their worry that many normal responses might well have been labeled pathological.

PTSD entered the DSM classification system under the pressure of Vietnam veterans and it seems to be a diagnosis people like to have, unlike most other conditions. The authors also described the meta-analysis by Rind, Tromovitch and Bauerman (1998), who found that child sexual abuse did not always have such detrimental effects as generally assumed and how these authors were severely criticized because of the outcome of their study. Horwitz and Wakefield rightly remark that this is very worrying and that psychiatry and psychology as a science should be open to new facts, even if they go against lay opinion and current scientific views.

Nowadays more people are treated for anxiety than for depression, unlike the 1950s and 1960s. The authors explain this change in chapter 8, *The Transformation of Anxiety into Depression*. Many people started to have health insurance, and just “being anxious” was not sufficient to have treatment costs reimbursed. Patients had to suffer from a specific
disorder. Anxiety disorders were defined more restrictively than depression; for example, the duration of anxiety disorders had to be at least 6 months, and they came lower in the DSM-III hierarchy. Also for anxiety there was at least some attempt to rule out normal anxiety by stating that the fear had to be irrational, whereas with depression only recent bereavement was accepted as an exception.

In Chapter 9, Setting Boundaries between Natural Fears and Anxiety Disorders, the difficulty in establishing the presence of a disorder is reiterated and the authors emphasize the importance of using dysfunction of activities that have been selected for as an essential condition for disorder. However, the authors also state that there is a lack of knowledge of evolutionary theory and that nobody currently knows whether treatment results differ between pathological anxiety and mismatched anxiety. The authors also mention that sometimes treatment can still be useful, even if there is no disorder according to their definition.

All We Have to Fear is an interesting book and, at times, shocking findings are presented, such as the problems Rind and co-authors experienced after suggesting that childhood sexual abuse did not always have dramatic consequences. The authors also make clear how the incidence of anxiety disorders increased because of watered down criteria. However, the fact that many people are suffering from a disease is not as such a reason to change criteria. The chance of experiencing a common cold at least once during one’s life is higher than 50% in certain climates, but people still call it a disease and the authors do not address this issue.

The main weakness of the book in my view is that the authors present a very simplified version of evolutionary theory. The authors mention as uncontroversial that the snapping of a septuagenarian’s femur is a disorder because femurs are biologically designed to support movement (p. 29). However, evolutionary processes are selected for a particular life-span. There is not much point in designing organs which can function for a thousand years if an organism is likely to be eaten beforehand (Kirkwood and Austad, 2000).

The authors mention that different levels of anxiety have been selected for, because one can find different niches. However, there might be no niche available and there is frequency dependent selection. The authors would probably classify this as a kind of mismatch, because the current environment has too many people with the same level of anxiety, but they do not clearly state this.

There are different forms of anxiety, namely anxiety for a specific stimulus (phobias) and also general anxiety. An idea from evolutionary psychology is that in a dangerous environment it might be better to have a low threshold for all forms of anxiety and in a less dangerous environment it might be evolutionarily advantageous to be only anxious for specific stimuli (Bateson, Brilot, and Nettle, 2011). If this is true, the view of Horwitz and Wakefield would become even more complicated, namely that not only can somebody have a disorder because of a mismatch between current environment and environment of evolutionary adaptedness, but people can also have the wrong type of anxiety response.

If one wants to use malfunctioning of an activity that has been selected for as criterion for disorder, it is unlikely that one can easily find empirical evidence. One needs
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to determine not only what has been selected for, but also whether it is a mismatch with the environment, either in general or the wrong type of disorder, whether it is a quick response because of the smoke-detector principle, whether it is frequency dependent selection, etc. However, the problems are even bigger. Wakefield and Horwitz do not mention treatability as a possible criterion in Chapter 2 and they are very explicit in Chapter 9 that sometimes conditions, which are not disorders, should still be treated. One of the problems of a broad definition of anxiety disorders is that treatment costs are very high and that costs of people not being able to work are probably even higher. However, it is very counterintuitive to offer insurance-reimbursed treatment to people who are anxious because of some biological dysfunction and not to others because of a mismatch, even if they are equally dysfunctional in their social environment. Wakefield stated in another publication that using treatability as a criterion was getting things backwards (Wakefield, 1999), but this seems to be incorrect. Evolution does not really play a role in deciding whether the treatment of a patient should be paid for out of public funds (Bolton, 2008). In the rationing of health care funds, in-vitro fertilization is seen as something one can do without and cancer treatment not, but from an evolutionary perspective it would be the opposite.

At the time of writing this review, Nature published a news item about the health problems of local residents after the Fukushima disaster (Brumfiel, 2013). Many local residents suffer from anxiety and nobody can really predict the effects of radiation for particular persons in the next decades, and the argument was made for further psychological support. One could argue that it is normal to feel anxious under those circumstances, but it does influence people’s life and, if they want help for psychological difficulties, why not? Fear is not always good for you and can be extremely unpleasant.

References

Bateson, M., Brilot, B., and Nettle, D. (2011). Anxiety: An evolutionary approach. Canadian Journal of Psychiatry, 56, 707-715.

Bolton, D. (2008). What is mental disorder? An essay in philosophy, science, and values. Oxford: Oxford University Press.

Brumfiel, G. (2013). Fallout of fear. Nature, 493, 290-293.

Horwitz, A. V., and Wakefield, J. C. (2007). The loss of sadness. New York/Oxford: Oxford University Press.

Kirkwood, T. B. L., and Austad, S. N. (2000). Why do we age? Nature, 408, 233-238.

Moffitt, T. E., Caspi, A., Taylor, A., Kokaua, J., Milne, B. J., Polanczyk, G., and Poulton, R. (2010). How common are common mental disorders? Evidence that lifetime prevalence rates are doubled by prospective versus retrospective ascertainment. Psychological Medicine, 40, 899-909.

Nesse, R. M. (2005). Natural selection and the regulation of defenses: A signal detection analysis of the smoke detector principle. Evolution and Human Behavior, 26, 88-105.

Rind, B., Tromovitch, P., and Bauserman, R. (1998). A meta-analytic examination of assumed properties of child sexual abuse using college samples. Psychological Bulletin, 124, 22-53.
Wakefield, J. C. (1992). The concept of mental disorder on the boundary between biological facts and social values. *American Psychologist, 47*, 373-388.

Wakefield, J. C. (1999). Mental disorder as a black box essentialist concept. *Journal of Abnormal Psychology, 108*, 465-472.