The role of BDNF in depression : will the neurothrophin hypothesis sparkle on, long after the glitter of the firework is gone?

Molendijk, M.L.

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Marc Leonard Molendijk

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Promotores:	Prof. dr. Bernet M. Elzinga	
	Prof. dr. Brenda W.J.H. Penninx	(VU Amsterdam)
	Prof. dr. Philip Spinhoven	
Promotiecommissie:	Prof. dr. Ron de Kloet	
	Prof. dr. Witte Hoogendijk	(Erasmus Universiteit)
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Marc L. Molendijk, Master of Philosophy, Master of Science
E: m.l.molendijk@fsw.leidenuniv.nl or molendijkml@gmail.com; T: 0031711526674
Institute of Psychology, Leiden University, The Netherlands
Leiden Institute for Brain and Cognition, Leiden University Medical Center, The Netherlands
Parnassia-BAVO Group, Department of Affective Disorders, PsyQ, The Hague, The Netherlands

Cover-illustration: *Vuurwerk Scheveningen strand* by Anouk Mentink (2013)

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Leaving aside the details of the discovery of BDNF by Yves-Alain Barde and his colleagues (1982) (some call it *heroic experimentation* [Reichardt 2006] others *a fortunate accident* [Y-A Barde, personal communication, 2012]), it does have a great legacy. Among this legacy is the *neurotrophin hypothesis*, which states that pathological conditions such as depression (partly) are secondary to an altered expression of BDNF. The theoretical and clinical possibilities of this hypothesis loom(ed) large, yet numerous hurdles are on the path towards definite inferences from it. We are still learning and answers may only come with time, new data, and alternative interpretations of the data that already are out there. This is what I tried to do over the course of the past few years and here I present the results of this exercise. And, do the results favor a sparkling future for the neurotrophin hypothesis? Well, they don't as the findings of this thesis (solid work over novelty) detail inconsistencies on many fronts and make me contemplate that: '*all that glitters is not gold* (William Shakespeare, 1596-1598) – it can be fireworks as well'.

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