Testing – a dangerous profession?



Morten Hougaard

My mission

To encourage you to stay deeply involved in the best profession ever!

To make you aware of and more capable of handling some of the issues for which too many of us pay a much too high price!

Test since 1976 (test lead and test manager since 1983)

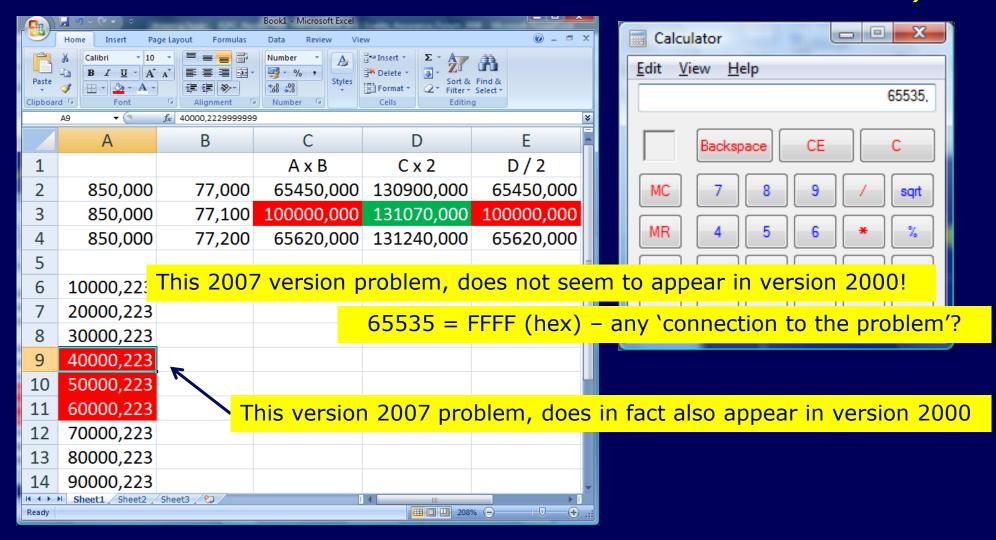
Founder of PrettyGoodTesting ApS an independent consultancy providing professional test and QA competences to assist companies, development-, project- and test-teams in achieving their goals.

PrettyGoodStressCoaching ApS is an independent company offering professional and 'new-age free', stress-coaching - based upon constant sparring with traditional healthcare professionals (physician, psychologist and psychiatrist). Our clients are within authorities or private companies. We do offer training/lecturing within stress-handling and stress-policies.

'The bitter taste of poor quality lingers long after the sweet taste of low price has been forgotten'

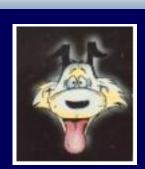


To calculate and round or not to calculate and round :0)



Stress is in the air

- Exponential increasing and booming `anti-stress industry'
- Stress- and depression-policies and billions of dollars/euro's
- Depression strikes about 17 million American adults each year (more than cancer, AIDS, or coronary heart disease)
 - Food and Drugs Administration (FDA) 1998
- 10-12 % of Danish workers are exposed to chronic stress
 - National (DK) Board of Health 2006
- 20 % of the Danish population will experience <u>severe</u> depression
 National (DK) Institute of Public Health 2006
- Every sixth person (17 %) suffers from <u>severe</u> depression at least once in their lives
 - Medical News Today 2006
- 50-80 % of our best senior test professionals will be hit by stress-related burnout or depression, unless <u>major steps</u> are taken!
 Morten Hougaard – 2006



A stressful industry

The IT industry is 'a complex and fast running engine'

Fast & cheap production, results in a constant race against time and competitors, with a strong focus on being first (rather than best). The result is poor quality and tight deadlines!

Endless numbers of so-called smart and quick changes and bug fixes results in seemingly endless retesting & regression testing!

It's too easy to skip proper analysis and planning, because it's not likely to be 'punished' until late in the process!

- How much testing is good enough?
- What about test -data, -environments and the many platforms
- Maintainability-, reusability and level of details of Test Cases
- What quality level is appropriate (and what is quality really)?
- When is too little or too much test-automation chosen?

A stress-test

- In a short while you will see a picture of 2 identical dolphins.
- This picture was used during an experiment at St. Mary's Hospital in London.
- Look carefully at both dolphins, jumping the water. As mentioned, the dolphins are identical.
- A closely followed scientific experiment, showed that even due to the fact that the dolphins are fully identical, persons hit by stress will notice some differences between the two dolphins.
- Heavily stressed persons will be able to observe quite some differences.
- Now carefully look at the image and try to see for yourself (whether or not you are able to notice one or two differences).
- If this is the case, you really ought to contact a stress-coach :0)



What is stress?

- Cause (whether imagined or real)
- STRESS (what's in between)
- Symptoms (e.g. palpitation)
- Stress is a CONDITION

- Stress is a natural thing
- Stress is an instinctive reaction
- Stress is an instinct of survival
- Stress pays an influence both physical and psychological

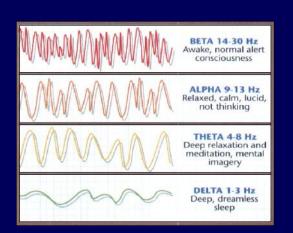


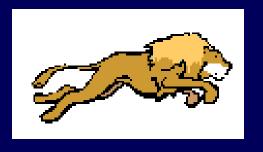




What really happens.....the Brain

- A change to Automode (Autopilot) (the primitive part of the Brain)
- Reduced 'access' to the intellect
- Disappearing analytical abilities
- Focus on solving 'immediate' problems
- Fear disappears







What really happens.....the Hormones

 Adrenaline+noradrenaline from the adrenal glands are directly injected in the bloodstream, causing:



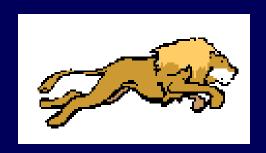
- Increasing heart frequency and blood pressure
- Expansion of major arteries and blood vessels of muscle-tissue
- Noradrenaline to contract blood-vessels in the rest of the body (inclucive organs)
- Adrenaline and noradrenaline to relax lung-tissue thereby increasing oxygen-intake
- Liver to free glucosis, increase of bloodsugar level and increase of the heat-production
- Cortisol-secretion (stresshormone) lower sensitivity to pain and improves homeostasis
- Feelings of happiness, euphoric, mania as well as psychosis





What really happens.....the Body

- Pulse, blood pressure and -flow increases
- Increased levels of blood-glucose and -fat
- Intensified breathing
- Intensified oxidation of blood
- Muscle tension/quivering
- Increased sweat and blood-flow toward muscles
- Digestion stops
- Intensified Immune System







A real stress-test

1) Fill out



2) Turn

PRETTYGOODSTRESSCOACHING*

Stress Test Instructions

Answer 'yes' or 'no' to all questions in the opposite questionnaire.
 Count how many red, yellow and green questions to which you have answered 'yes'.

Red signals are never OK!

Due to stress, your body and mind are out of balance. You lose track of things, and you lack creativity and efficiency, it is important that you take measures to relieve your stress. Red signals never appear without reason. However, a symptom may not be caused by stress exclusively. Seek professional help if you have three or more red signals.

Occasional yellow signals are OK

It is OK to 'go through a yellow light' every now and again if you are doing something Important. Do not do it too often, though, and notice if you arswered 'yes' to many yellow questions. After a period with yellow signals, you need to relax and'empty your brain'. It is important that you let your body and brain fully recover.

Green signals are OK

You are experiencing "instant stress", which is quite airight. Although, if the green signals continue, yellow and red signals will start flashing.

For detailed result and more information, go to www.PrettyGoodStressCoaching.com

This test is developed by stress expert Bjame Toftegaard, PhD, in collaboration with PrettyGoodStressCoaching®.

StressCare - preventing occupational stress

The StressCare concept is developed by Jesper Skytte in collaboration with PrettyGoodStressCoaching®.

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3) Fold & check

Answer 'no' If your symptoms are surely not caused by stress.

OUR STRESS LEVEL	YES	NC
dyat night?		Г
itable than usual?		П
es drive or walk is the direction you usually go, although you need to go another way?	П	Г
sent-minded than usual?	П	
ce palpitations regularly?	П	Г
nderpressure, does yourmouth dry out?	П	П
	П	Г
ulating substances daily? (Alcohol, drugs etc.)	П	Г
ld although it is not really cold?	П	Г
ed to pee although you do not really have to go?	П	П
sily moved to tears than usual? (Particularly women)		П
ssure, do you sweat?	П	П
le? Can you handle everything?	П	Г
ce unexplained pains?	П	П
om gastric (digestive) troubles?	П	Г
ent and withdrawn than usual? (Particularly men)	П	Г
nner resistance' towards some of your doings? (Find it hard to make an effort)	П	П
om menstruation disorders? (Women only)	П	Г
ngetful than usual?	П	
gressive than usual (short-tempered)?	П	Г
terflies in your stomach?	П	П
stomach or chest tightening?	П	Г
ce racing thoughts?	П	П
ce a lack of sex drive?		Г
ce tics and twitches?	П	П
re stimulating drinks (coffee, cola, energy drinks etc.) than usual?		
s (or other diseases) flared up?	Г	Г
tigued than usual?	П	Г
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Some GREEN stress-signals

- Temporary palpitation
- A change in breathing
- Temporary trembling/shivering (shaking)
- Tics
- Irregular muscle tensions
- Sweat (hands, feets etc.)
- Pale (face)
- Dry mouth
- Nervousness
- Cold feets





Some YELLOW stress-signals

- Tiredness/fatigue
- Having trouble sleeping
- Physical anxiety
- Reluctance toward action/doing things
- Being irritable
- Often starts crying (many women)
- Silent and introvert (many men)



Some RED stress-signals

- More forgetful or absent-minded
- Becoming aggressive
- Eczema, headache and migraine
- Unexplainable other pains
- Sicknesses worsening (getting worse)
- Becoming less social
- Increased consumption of stimulates (alcohol, coffee, softdrinks etc.)
- Digestion- and stomach-problems
- Menstruation-problems (women)
- Lack of recognition of own stress





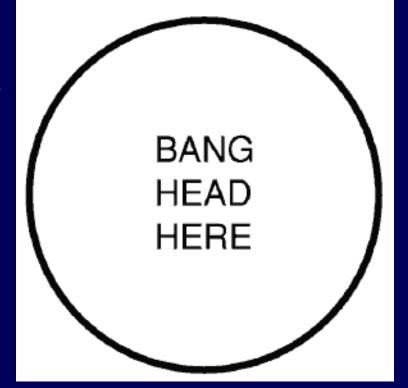


Get rid of that stress

- Exercise 30 minutes a day
- Relaxe mentally
- Sleep well and enough (≥ 8 hours)
- Eat healthy
- Get yourself a good laughand sing out loud- several times a day
- Enjoy physical comfort and intimacy
- Keep at least one weekly 'day off' (from your regular job)

ANTI-STRESS KIT

- PLACE ON A FIRM SURFACE
- FOLLOW DIRECTIONS IN CIRCLE
- REPEAT UNTIL YOU ARE UNSTRESSED OR BECOME UNCONSCIOUS

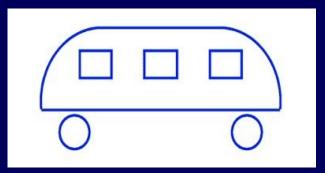


Some major characteristics of good testers

- Structured, analytical and focused on a highly moving target
- Loyal and dedicated to testing and to the team serving two masters
- Contributing by being negative devil's advocate
- Making things fail likes to dispel the illusion that things work
- Alert to bugs and problems any bug and any problem
- Eye for details and perfection still keeping the overview
- Care deeply about product quality but often blamed for low-quality
- Steadfast, empathetic and diplomatic positive presenter of bad news
- Sees only what goes wrong every process seems kind of screwed up
- Honest, fair and reliable while constantly fighting for own survival
- Surplus and humour are appreciated and highly needed:0)

Testers are critical & 'out-of-box' thinking

But are they clever than a 6-year old child?



- Does the bus, in the picture shown, leave going left or right?
- Look carefully think and make your choice!
- The same picture was shown to a Kindergarten 'class'
- The 'class' was asked the same question:
- 90% of the children suggested "the bus will leave...going..."
- When asked why They answered:
- "Because...!"

Stress, depression and burnout – in the real world

Dangerously stressed employees tries to hide their situation – because it feels embarrassing and shameful to 'give in'!

- Conscious and dutiful, engaged and very loyal people with a tendency to perfectionism!
- Strong inner boss and at the same time proud, so that they often find it very difficult to admit their own weaknesses!
- Ashamed of themselves!
- Like fast-running engines, with insufficient oil
- Experts in hiding their situation!
- Stress can become deadly serious!
- Good friends and social networks replaced by fast-food and drinks!
 - Kurt Kørner, Chief psychologist at Danfoss 2006



Agile Development, threat, challenge...or opportunity?

Manifesto for Agile Software Development:

- We are uncovering better ways of developing software by doing it and helping others do it.
- Through this work we have come to value:

Individuals and interactions over processes and tools Working software over comprehensive documentation Customer collaboration over contract negotiation Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more. No processes!?

No documentation!?

No contracts!?

No requirements!?

No plans!?



A few words on Perfectionism

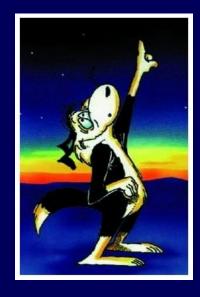
Is perfectionism harmful and destructive?

Is perfectionism helpful and constructive?

Two major views:

- Uni-dimensional view:
 All perfectionism is neurotic and unhealthy
- Multi-dimensional view (in most research work):
 High standards, high levels of organisation, strive for excellence (perfectionism is an energy to be channelled not a malady to be cured)

MPS (multi-dimensional perfectionism scale) by Hewitt and Flett



Non-Perfectionism Normal (healthy)
Perfectionism

Harmful (unhealthy)
Perfectionism

Depressing jobs? Not if speaking the risk-language

1. "Testers are negative and hold a depressing job. It's almost like a parody of a Greek myth:



On the island of the testers, they were doomed forever to search for what could not and should not exist, knowing that to succeed would bring misery to the Gods" - Cem Kaner, James Bach and Bret Pettichord - Lessons Learned in Software Testing

- 2. It is essential that testers and test managers both understand and speak the risk-language:
 - a. Testing is never perfect nor does it finish...it just stops!
 - b. Test plans <u>will</u> be squeezed and the number of risks <u>will</u> increase! You are responsible for <u>passing on</u> this message <u>without becoming frustrated</u> about it!
 - c. Test management is about ensuring that, at any time, you have used the <u>available</u> resources and done the best testing <u>possible</u>!

 It's as simple as that!

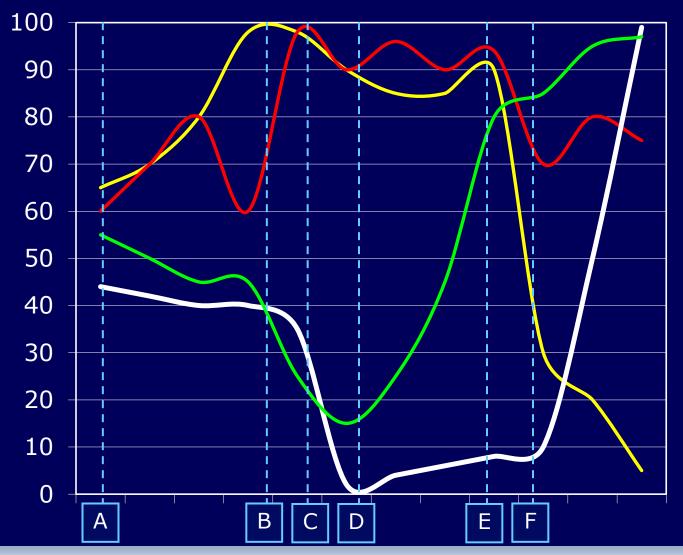
Some major symptoms of a depression

...<u>several</u> of these symptoms <u>must</u> be present for <u>several</u> months...If so, have yourself a talk with your physician!

- Sadness and a feeling of emptiness and worthlessness
- Lack of joy or enthusiasm
- Lack of concentration and memory
- Tiredness, sleeplessness and hesitation
- Physical symptoms, such as headache or stomach ache etc.
- Anxiety, self-reproach and self-hatred
- Feeling of guilt and thoughts focused around death

It <u>is</u> however, <u>quite normal</u> to experience a few of these <u>once a while</u> and for a shorter period of time (we <u>all</u> do)!

The darkest years of my life – and the new beginning



- —Average Pressure (personal)
- —Average Pressure (work)
- —Average Mood
- Openness

A: Irrational thinking

B: Anno Horibilis [Pressure]

C: Death, Crunch [Pressure]

D: Psychologist, Drug A

E: Opr., sick.-leave, Drug B

F: Psychiatrist, Drug C

Depression – diagnosis and treatment

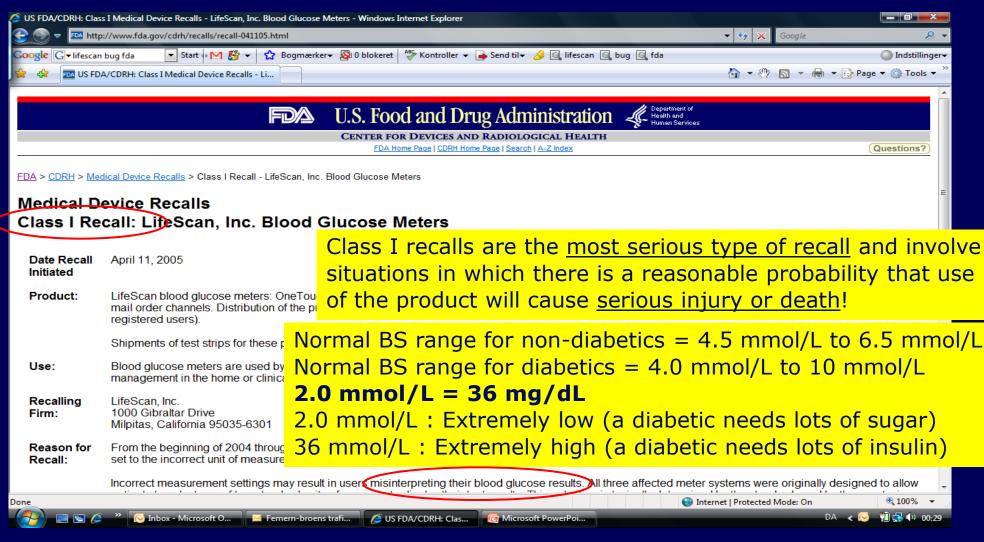
- Depression is diagnosed by means of a questionnaire and a thorough talk with a physician or psychiatrist
- Depending on the severity of the depression, either therapy, medication or a combination of these is recommended
 - a. Cognitive therapy (dealing with irrational thinking)
 - b. Anti-depressives
- The sooner the treatment is initiated, the faster the sick person will recover, and the less the risk of relapse!

When I hear somebody sigh,
"Life is hard," I am always tempted to ask,
"Compared to what?"
- Sydney J. Harris





The wonderful but challenging world of Medical Devices



Some very common words of advice

..even though these words are holding <u>a bit of the truth</u>, they are impossible to grasp if in the midst of a depression!

- If I were you, then I would...
- Start strengthening your creative sides or get yourself a hobby
- Physical activities are said to be good for psychological problems
- Avoid using 'wonder-drugs'. They are dangerous to your health
- It's important to get out of your house and meet other people
- You really should get yourself an education (or a job)
- Remember to stay joyful at the smaller things in life
- You just have to stop being so concerned about yourself
- Still depressed?! Everybody has a bad day once a while!

The wrong belief behind many 'good pieces of advice'

...it's really the person's own fault, so this person needs to shape up!

- Remember, it's neither childhood, parents nor current problems that have directly led to this sickness!
- Depression is no one's fault, and nor does it have any simple psychological explanation!
- If the sick person is in the midst of his depression, it is simply <u>impossible</u> for him to 'just shape up'!
- One thing the sick person doesn't need:
 - Further feeling of guilt and bad conscience, he's probably already fed up with this! Don't forget, when it comes to providing guilt and bad conscience... ...you are dealing with an expert!

Actualization

Esteem

Love/belonging

Safety needs

Physiological needs

Remember Maslow?

What the 'all singing all dancing' tester can do

...to protect himself against depression and burnout

- Keep up enjoying and doing the good work and don't forget your breaks and some good laughs once in a while
- Allow yourself to dwell a little around the successes of yourself and your team – focus on your role in the big picture
- Look out for GREEN, YELLOW and RED signals from your mind and body, and align your engagement with your available resources
- Say YES and learn to say NO and engage and disengage accordingly and decide upon speaking the risk-language
- Regard working late hours as something highly extraordinary and remember to always respect your own 'stress signals'
- Give priority your family, friends and whatever you hold dear
- Remember that your job always only be a job!



Some things you <u>must</u> be aware of, if already hit

...to help yourself getting out of this or avoid sinking any deeper

- You need not be ashamed of yourself or your situation!
- Depression is a <u>sickness</u> and you <u>will</u> recover from it!
- Condemning yourself will <u>not</u> help you!
- Let go of your pride and ask for help!
- Psychologists and anti-depressives are a help, <u>not</u> a danger!
- Be realistic about your own expectations!
- When you're in a bad mood you're likely to distort information!
 So when in bad mood be precautious about your thoughts and avoid making major decisions!
- Be patient and do something you like to do;
 ...go fishing, buy yourself something nice, or...?

Things we all should do

...to help our colleague or employee (as <u>part</u> of our stress-policy)

- Foster and reward an attitude of openness and involvement as well as a sound humour and some positive madness!
- Be alert to perfectionists and speak the risk-language!
- Delegate and don't forget to listen, encourage and reward!
- Always let slack but <u>never</u> overtime, be part of your planning!
- Regard the sickness seriously and learn about depression!
- Help the sick person to find professional assistance!
- Be patient, keep in contact and plan activities 'in a box'!
- Avoid avoiding the person and do not overprotect the sick!
- Arrange for sickness-leave, ensure practical assistance and allow for a stepwise returning of your colleague/employee!

I got inspired by some

...pretty good books

Slack

- Tom DeMarco

Peopleware & Waltzing with Bears

- Tom DeMarco & Timothy Lister

Lessons Learned in Software Testing

- Cem Kaner, James Bach & Bret Pettichord

Surviving the Challenges

of Software Testing

- William E. Perry & Randall W. Rice

Perfecting ourselves to death

- Richard Winter

Pretty Perfect Storms...

- Morten Hougaard (2009)

...pretty good links

www.FDA.gov

www.DepNet.com

www.DepressionAlliance.org

www.MHSource.com/Depression

www.JobStressHelp.com

www.Center-For-Stress.dk

www.StressLinien.dk

www.ForebygStress.dk

www.DepNet.dk

www.DepressionsForeningen.dk

www.PrettyGoodStressCoaching.com





Time for questions and comments

Thank you for listening and participating

Testing – a dangerous profession, version 7.0 [pdf]: www.PrettyGoodTesting.com (Articles & Papers)

Free <u>no-registration</u> online Stress Test at: <u>www.PrettyGoodTesting.com</u> (Links & Papers)

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