In Praise of the Error

(Why it is important to make misstakes)

Ulrich Bongartz

DBV-Bridgelehrer

7. Oktober 2023

Inhalt

In general about the error

Inhalt

In general about the error

Consequences

Thesis

In Praise of the Error

Mistakes are good and necessary.

Mistakes are helpful in and for the learning process!

Thesis

In Praise of the Error

Mistakes are good and necessary.

Mistakes are helpful in and for the learning process!

If this is true: How does this influence my teaching?

Question

Error

- How do you feel, when you commit a mistake?
- ▶ How do you feel, when you are in error?

Question

Error

- How do you feel, when you commit a mistake?
- ► How do you feel, when you are in error?

bad, angry, shame, caught, ...

The »Ooops-Moment«

We have no feeling of committing a mistake.

The named feelings only occur,

when we recognise a mistake or error.

The »Ooops-Moment«

The moment we realize, that we have made a mistake.

Play dead

Play Dead

If you do nothing, the number of potential errors decreases.

Play dead

Play Dead

If you do nothing, the number of potential errors decreases.

True, but no way to improve on anything.

Learning content of schools: In addition to the subject matter, it teaches:

Learning content of schools: In addition to the subject matter, it teaches:

There is "correct" and "wrong".

Learning content of schools:

In addition to the subject matter, it teaches:

- There is "correct" and "wrong".
- There are knowers who can decide this correctly.

Learning content of schools:

In addition to the subject matter, it teaches:

- There is "correct" and "wrong".
- There are knowers who can decide this correctly.
- ► Two-valued logic: something is either right or wrong.

Learning content of schools:

In addition to the subject matter, it teaches:

- There is "correct" and "wrong".
- There are knowers who can decide this correctly.
- Two-valued logic: something is either right or wrong.
- Making something »wrong« is usually associated with disadvantages.

Learning content of schools:

In addition to the subject matter, it teaches:

- ► There is »correct« and »wrong«.
- There are knowers who can decide this correctly.
- Two-valued logic: something is either right or wrong.
- Making something »wrong« is usually associated with disadvantages.

This is an evil and wrong lesson!

Consequences of that hidden curriculum: Who am I?

So, we don't want to be wrong, we want to be right.

Consequences of that hidden curriculum: Who am I?

So, we don't want to be wrong, we want to be right.

A succesful life

We are told and we learn, that to master life means, that we must not make mistakes.

Consequences of that hidden curriculum: Being right

We want to be right and like that feeling, but it is self-affirming and mostly not real.

Consequences of that hidden curriculum: Being right

We want to be right and like that feeling, but it is self-affirming and mostly not real.

We believe, we are right and that our beliefs accurately reflect the world.

The »Godcomplex«

Godcomplex

The God complex is a popular psychological term for the unshakeable self-perception of a person, who believes, that he or she is godlike or acts godlike because of personal abilities, privileges or his or her infallibility.

The »Godcomplex«

Godcomplex

The God complex is a popular psychological term for the unshakeable self-perception of a person, who believes, that he or she is godlike or acts godlike because of personal abilities, privileges or his or her infallibility.

Function of the fault

»Memento moriendum esse«

Remember that you are mortal!

How do people develop skills?



Function of the fault

The error gives us feedback about our actual level of knowledge.

How does progress and knowledge emerge?

- In science by thesis and refutation
- in (too) complex contexts by try and (you guessed it) error. Not everything can be captured in a closed formula. Experimentation is needed here (e.g. battery development, spray nozzles).

How does progress and knowledge emerge?

- In science by thesis and refutation
- in (too) complex contexts by try and (you guessed it) error. Not everything can be captured in a closed formula. Experimentation is needed here (e.g. battery development, spray nozzles).

Trial and Error

What is Evolution?

What is Evolution?

Evolution is development, change and better adaptation.

Evolution loves small mistakes!

What is Evolution?

What is Evolution?

Evolution is development, change and better adaptation.

- Evolution loves small mistakes!
- ► The individual sacrifices himself for the population.

What is Evolution?

What is Evolution?

Evolution is development, change and better adaptation.

- Evolution loves small mistakes!
- ► The individual sacrifices himself for the population.

Function of the fault

The error shows us ways to the solution and warns us against going astray.

Summary: Benefits of making mistakes

Errors, Failure, Mistakes are part of the learning process.

The error keeps us humble.

Summary: Benefits of making mistakes

Errors, Failure, Mistakes are part of the learning process.

- The error keeps us humble.
- The error gives us feedback about our actual level of knowledge.

Summary: Benefits of making mistakes

Errors, Failure, Mistakes are part of the learning process.

- ► The error keeps us humble.
- The error gives us feedback about our actual level of knowledge.
- ► The error shows us ways to the solution and warns us against going astray.

Create a safe space!

Create a safe space!

Judging an error is good, judging a person is bad Never judge a person, always judge a way of playing.

Teacher role

Never allow a student to evaluate another student.

The teacher is the only one who may evaluate.

Teacher role

Never allow a student to evaluate another student. The teacher is the only one who may evaluate.

Stand behind the one who made the mistake. This is not a technique, but an attitude.

Celebrate the identified mistake as a Win/Win-Situation

The »Lerngeschenk« »Learning Gift«

Hooray, we found this bug, so we are one step closer to perfection.

I deliberately call this a »learning gift« to counteract the negative connotation of »mistake« with the positive meaning of »gift«.

Encourage to fail

Failure ergo sum

»I fail, therefore I am.«

Encourage students to guess and try, so that they can also experience the consequences.

Encourage to fail

Failure ergo sum

»I fail, therefore I am.«

Encourage students to guess and try, so that they can also experience the consequences.



How do you play 3 SA with the lead of \heartsuit Q?

Good Errors, bad Errors

Example construction

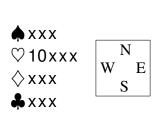
Create your example hands in such a way, that a mistake necessarily leads to failure and only correct playing leads to success.

If necessary, explain the difference between successful play and correct play.

Errors as differential diagnostic tools

Errors as differential diagnostic tools

The error shows us, what still needs to be explained.



				_
	West	Nord	Ost	Süd
i)		Pass	2 ♣(1)	Pass
	2 \diamondsuit (2)			
ii)		Pass	2 ♣(sf)	2 🏚
	3 \diamondsuit (?)			
(1) s	emiforcina	(2) Pur	net/Relais	

What does the error show us?

So many mistakes, so litte time

Make a selection

Consider which errors you work on and which you ignore, because they are not helpful for the student.

Focus on one/few significant errors.

Do not overburden the student.

	A	K	1	0	2
-1-	•	•	•	_	_

 \odot 10763

 \Diamond 652

494

	N	
W		E
	S	

♠QJ7653

 \bigcirc A4

 \Diamond AKJ

♣K2

West	Nord	Ost	Süd
1 SA(1)	Pass	2 \diamondsuit (2)	X(3)
Pass (4)	Pass	2♡	2 🏚
Pass	4 🌲	Pass	Pass
Pass			
(1) 12–14		(2) Transfer	
(3) 15+		(4) keine 3 Cœur	

West leads ♥K (duck) and follows with

♥Q . Your turn!

♠ AK102
♡10763
♦652
• • •

	N	
W		E
	S	

594

♠QJ7653

♡A4

 \Diamond AKJ

♣K2

Nord	Ost	Süd
Pass	2 \diamondsuit (2)	X(3)
Pass	2♡	2 🏚
4 🌲	Pass	Pass
	(2) Transfer	
	(4) keine 3 Cœur	
	Pass Pass	Pass 2 ♦ (2) Pass 2 ♥ 4 ♠ Pass (2) Trans

West leads ♥K (duck) and follows with ♥Q . Your turn!

»Solution 1:« cash all tricks, lose ♥K, ♦Q, ♣AQ.

♠ AK102
♡10763
♦652

\$94

	N	
W		E
	S	

♠QJ7653

♡A4

 $\Diamond AKJ$

♣K2

West	Nord	Ost	Süd
1 SA(1)	Pass	2 \diamondsuit (2)	X(3)
Pass (4)	Pass	2♡	2 🏚
Pass	4 🌲	Pass	Pass
Pass			
(1) 12–14		(2) Transfer	
(3) 15+		(4) keine 3 Cœur	

West leads \heartsuit K (duck) and follows with \heartsuit Q . Your turn!

»Solution 2:« Finesse ♦Q, losing . . .

♠ AK102
♡10763
♦652
• • •

	N	
W		E
	S	

594

♠ QJ7653 ♡A4

 $\Diamond \mathsf{AKJ}$

♣K2

West	Nord	Ost	Süd	
1 SA(1)	Pass	2 \diamondsuit (2)	X(3)	
Pass (4)	Pass	2♡	2 🏚	
Pass	4 🌲	Pass	Pass	
Pass				
(1) 12–14		(2) Transfer		
(3) 15+		(4) keine 3 Cœur		

West leads $\heartsuit K$ (duck) and follows with $\heartsuit Q$. Your turn!

»Solution 3:« Endplay West with $\Diamond Q$, losing when East holds $\Diamond Q$.

	A	k	(1	(2
\Diamond	1	0	7	6	3
	_	_	_		

♦652

\$94

	N	
W		E
	S	

♠QJ7653

♡A4

 \Diamond AKJ

♣K2

Süd		
(3)		
2		
ass		
(2) Transfer		
(4) keine 3 Cœur		

West leads \heartsuit K (duck) and follows with \heartsuit Q . Your turn!

Solution: Endplay West with A.

Celebrate your identified mistakes

May your students gift you abundantly with many creative mistakes.

Thank you for your attention! — The End —

Thank you for your attention!

— The End —

