



5TH ANNUAL CONGRESS Bridging the gap for a safer care

SEPTEMBER 8TH AND 9TH 2017
ESA BUSINESS SCHOOL - BEIRUT, LEBANON

CRM/MTT

English Version



About MTT - Medical Team Training

- The lack of communication and cooperation within the team is responsible for 60% of the EIG (Industry and Medicine)
- The technical skills acquired at the university in our respective trades are not enough to improve on these areas.
- We also need to master non-technical skills: social skills, leadership, mutual help, conflict, stress, fatigue, etc.
- Aeronautics has developed and imposed special training to reduce this risk (Crew-Resource Management)
- These trainings are based on case analysis and on collective reflection on the identification of problems and actions to be taken in order to progress.
- In this sense, it is not a classical course but a sharing of experience and a search for service project to improve
- Already some important successes
 - USA - Veterans' Hospitals: 18% reduction in mortality after 2 years of effort (Service Project + MTT + Indicators + Coaching)



MTT rules

- 3 hours together, no start in the middle, no phone
- Free Word, everyone with an equal word
- Word in the group. No re-use of comments outside team
- No mutual aggression
- Work by consensus research on the diagnosis of the team 's operating difficulties
- No single or academic answer
- What will be on the whiteboard at the end prefigures your contract for commitment to improving your team

A case to begin...



Scheduled Plastic Surgery

- June 15: Patient of 38 years coming for silicone gel-filled breast prosthesis 330g*
- August 10: 2nd visit, informed consent,*
- August 22 : Anaesthetic consultation: ASA 1, mention of asthma, and an history of sports trauma of the right shoulder. Scheduled on September 3 as 1 in the afternoon, 1h00PM, room 2,*
- 1h05 pm : patient welcome to the block, identity monitoring, patient installed by OR nurse with the help of the stretcher-bearer, instruction for axillary approach first, installation cross arms,*
- 1h15 pm : the OR nurse starts the Check-list*
- 1:28 pm the surgeon enters the OR and greets the patient*
- 1:30 pm : induction by Propofol, Tracium, Sufentanil*
- 1:40 pm incision*
- 1:51 pm the surgeon asks for prostheses, finds that they are not available at the desired size, checks with the OR chief nurse by intercom: no trace of order*
- 2:02 pm decision of surgical break, the surgeon orders the OR chief nurse to contact the supplier, and also two proximity hospitals in case the prosthesis would be available. Very upset, he does not argue, and leaves the room to the office of the OR chief nurse asking the anaesthetic and the OR nurses to take care of the patient.*
- The OR nurses and anaesthesiologists come and go in and out of the room while waiting.*
- 2:39 pm: a pair of correct prostheses is found in a neighbouring establishment*
- 3:35 pm the right size prostheses arrive by cab*
- 4:48 pm end of intervention, extubation, discharge at post operating monitoring room*
- 5:12 pm, pain and paresis in upper right limb*



IMPROVING COMMUNICATION

2017

5

2017 Boylston, MT

T



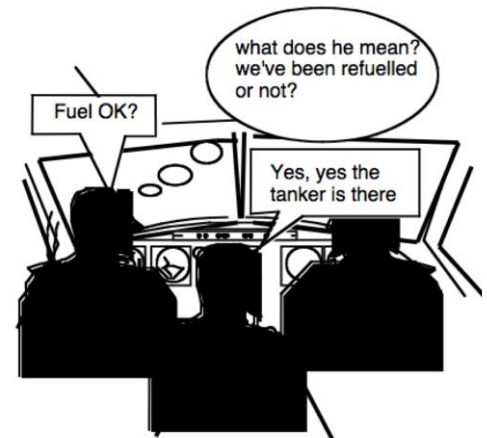
- ☐ 10:20am Busy activity at the coronary angiography OR, multiple entries this morning
- ☐ The OR on the telephone to the Cardiac ICU: "Hello, this is Mary, how are you today, could you get me down Mr. Pierre, we wait for him »
- ☐ Auxiliary Nurse on the phone in the ICU: "Who? ... Mr. Pieruto? ... " (Mary has already hung up).
- ☐ 'the OR is asking now for the first patient', the Auxiliary nurse says to the ICU nurse.
- ☐ 10:30 The ICU nurse to the stretcher-bearer : "it is for the coronary angiography ... we have two patients, I cannot figure out who's first ... wait, I look ...' She opens the computer, but is interrupted by a patient call before reading, leaves the office and asks the stretcher to wait for a few seconds
- ☐ 10:32 The stretcher-bearer leans over the computer opened at the program page and reads patient names.
- ☐ 10:37 The OR nurse returning from the call sees the stretcher-bearer waiting for the lift to escort Mr Pieruto to the OR
- ☐ She does not matter, and immediately resumes work with multiple demands.
- ☐ The error is detected by the identity monitoring check at the OR



Operative language

- The vocabulary used is limited. For example, Air traffic controllers' operational vocabulary is less than 500 words (Falzon, 2003).
- The words used can be unusual or not even be a part of a normal vocabulary.
- The professional context makes these words unambiguous. For example, the word "rare" has two meanings: it can mean "unusual", or, when cooking meat, "only slightly cooked". However, the meaning for a cook in her or his kitchen is perfectly clear: "rare" means only slightly cooked even though this is its rarer meaning in English.
- Grammar is simplified and reduced to a core of rules that do not necessarily comply with standard grammar.
- The meaning of the message is only explicit in the context in which it is transmitted. It is the context that reduces ambiguities and, ideally, leaves only one possible interpretation.

**Vague speech:
an invitation to ambiguity!**





Interruptions: Have you thought about solutions? Some are already in use

Airline policies

If you **MUST** interrupt a staff member to transmit information to her or him:

- if their workload is light, courteously remind them of what task was interrupted after transmitting your message.
- if their workload is very heavy, do not interrupt unless it is absolutely essential! Try to wait until they have completed their task.

If a message is addressed to you when you are carrying out a priority task, do not hesitate to reject it or ask for it to be postponed. Never leave a task in an incomplete state to start a non-essential discussion.

At the end of the discussion, please remind the colleague where it was when you interrupted her/him

• Other solutions

- Limiting the number of people (technical room)
- People dedicated to the phone
- Silent OR (including trainees and students)
- Wearing protective jackets
- Protected areas where you do not disturb
- Phone and mobile phone management



Shared mental model

- 7:30pm Pierre, takes the night guard of anaesthesia in obstetrics
- Martin, anesthesiologist in day service remains until the rooms finish
- Pierre arrives and crosses Francois still present at the OR: 'Where are you?'
- Martin: 'It's okay, I'm done'
- Pierre goes to the labour ward, places an epidural, and goes down; There is a patient in the corridor on a stretcher
- Pierre to the nurse who is caring the patient: 'What is she doing there?'
- The nurse 'she comes from the emergency department waiting for an OB and probably surgery'
- Pierre who crosses Martin: 'You told me it was over'
- Martin: 'Well, I finished my day, I'm going!'



Share mental model





A good briefing

- Must be short (less than 10 items can be fully understood: description of intentions, limits and the associated incidents). It is better to split the briefing into two parts and start again later if the standard version is too long.
- Must be individually prepared for each surgery (automatic briefings, which may be used as routine for repetitive surgeries, activate none of the knowledge in the memory and are completely ineffective).
- Must be understood by all staff members. A briefing is primarily addressed to other staff members, to bring their plans of action into line. Consequently, a simple but well-understood plan of action, supported by all is preferable to a possibly brilliant but manifestly misunderstood plan.



SBAR / AHRQ





S-B-A-R

- Situation
- Background
- Assessment
- Recommendation

Example



- Paris , French Teaching Hospital
- Scheduled hip prosthesis, Patient 67 Years old, ASA 2
- German junior Anaesthesiologist recruited with a 1 year contract. First week on duty
- He greets the patient, checks the medical files, and installs a spinal anaesthesia,
- The surgeon asks if everything is OK, checks the fever (absent), the skin condition, the side, does the checklist (all goes well, no particular risk)
- And realizes the incision
- At the moment when the surgeon is going to place the prosthesis, an informal discussion takes place between the anaesthesiologist and the anaesthetist's nurse where it is said that the patient had 9,000 white cells yesterday
- The surgeon (surprised): "What are you saying !! 9,000 white cells! why not saying that to me before?"
- The anaesthesiologist : Sir, it is up to you to check and decide about the biology, not to me
- The surgeon – 'Not at all !! Where have you seen such a policy???'
- "The anaesthesiologist: In my country Sir, I may tell you that in Germany, it is the job of the surgeon, not the anaesthesiologist



IMPROVING COOPERATION

2017

15

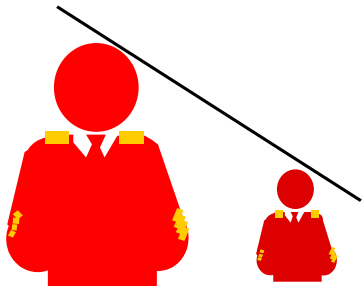
2017 Boylston, MT

T





The autocratic cockpit



In an autocratic team, there is really only one person flying.

Autocratic managers take no account of other members' opinions, they decide alone and impose their decisions, they rarely inform the staff of any changes in the plan of action, and they rarely delegate. Autocratic Managers communicate little, and listen even less.

This leadership style is detrimental to flight safety for several reasons. First, the Captain is flying the plane without assistance, making him or her very vulnerable to overload in the event of a problem. Second, the other crewmember(s) are out of the loop; there is no shared situation awareness, hence they will be completely 'surprised' and under-prepared for any non-normal event.

There is another effect. Faced with a Captain whose manner or orders are too authoritarian, a First Officer is likely to react in one of four ways:

A First Officer may:

Become aggressive, increasing tension in the cockpit.

Turn the aggression inward, withdrawing and offering no communication or assistance: 'sitting on the hands'.

Look for a scapegoat for the unexpressed aggression (ATC or cabin staff).

Contain the aggression and delay the reaction to some later unexpected, often unrelated incident.



The Self Centred cockpit

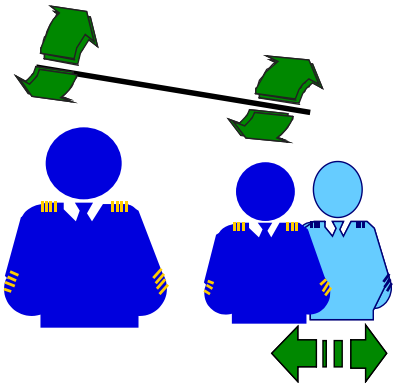
In the self-centred cockpit, there are two individuals, but no crew. Crewmembers work on different plans of action without keeping each other informed. Each takes no interest in what the other is doing, all the while believing that others know their actions.

There is minimal communication and no shared mental model of the situation, therefore opportunities for misunderstanding and misrepresentation are very high. It is one of the most dangerous cockpit situations and offers the least synergy.

This type of situation occurs in the transient period after a conflict (it is a typical reaction to shut down all communication) or in degraded situations when stress impedes synergy.



The synergistic cockpit: the ideal

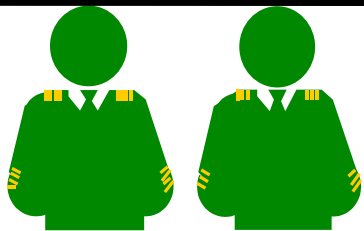


In the synergistic cockpit, the Captain makes the decision but with the help and active participation of other crewmembers. There is strong two-way communication, and all relevant information reaches the Captain. Successive stages in the achievement of objectives are clarified. The Captain delegates actions so as not to be overloaded, and to allow other crewmembers the opportunity to demonstrate their competence, and to learn.

Synergy is adaptive and, depending on the circumstances, may tilt more in favour of authority. However, the tendency must always remain within limits accepted by all crewmembers.



The Laissez-faire cockpit



In a laissez-faire cockpit, there is no real leader. Similar to Blake and Mouton's impoverished management style (1,1), the Captain is passive and allows other crewmembers absolute freedom in deciding the flight sequences. There is little concern for task or relations.

Sometimes the atmosphere is relaxed and communication concentrates on a variety of subjects, probably not all professional. Much like the 'Country-club' (1,9) style, the captain is too concerned with a convivial atmosphere, and overlooks important tasks.

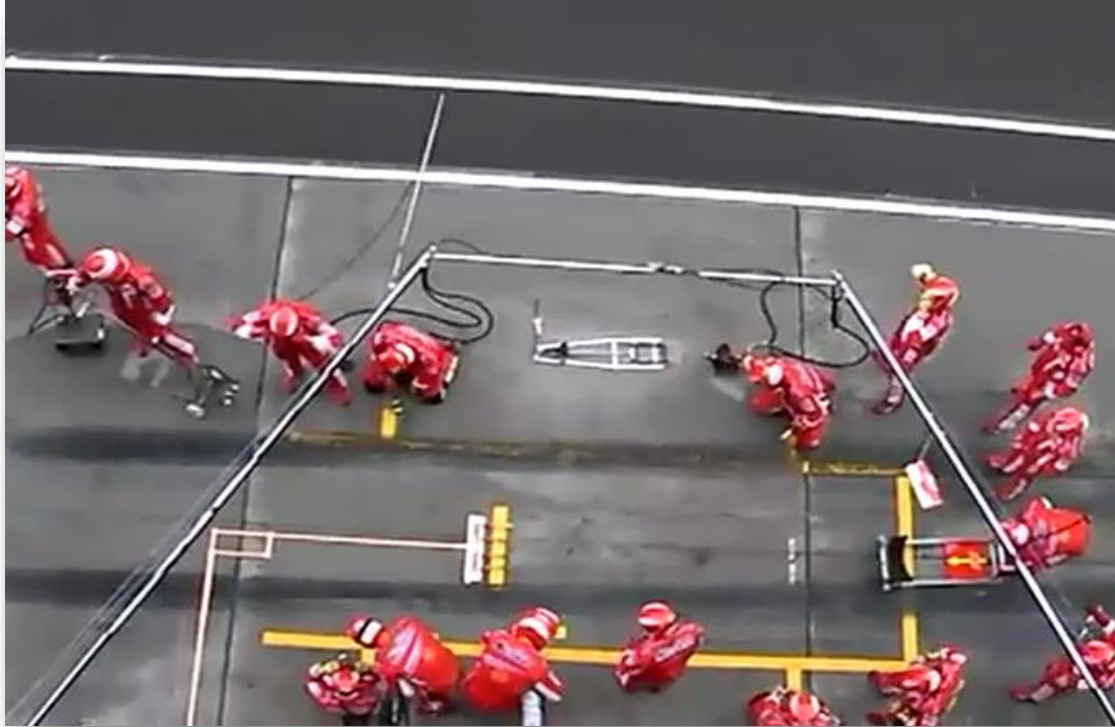
This situation frequently arises when the captain is working with experienced co-pilots and flight engineers, particularly during the "First Officer's leg". The Captain, not wishing to appear too 'pushy' or controlling, overcompensates for this concern by being too silent.

The risk in this situation is the absence or reversal of authority. In the absence of clear leadership, the First Officer may be compelled to find a way to take over.





Formula 1



2017

2017_Beyrouth_MTT



Bangkok Market



2017

2017_Beyrouth_MTT



Dabbawallas India



2017

2017_Beyrouth_MTT



EXERCISE How does your team work at the OR?

Anzieu D. et Martin JY, La dynamique des groupes restreints, PUF, 1982, rééd 2007

You are rather a crowd?

- No Leadership
- But an emotional sharing of the local context by all.
- The composition of the crowd evolves every day in the sandstone contexts

You are rather a Band?

- A charismatic leader, who builds the identity markers, and organizes the adoubement of the members (initiator rites)
- The same culture for all
- Strong markers of identity: clothes, words, styles of relationship between members, one is part of the band where one is rejected

You are rather a Community?

- Interest, ideas, Values and beliefs shared by all
- There may be several leaders, not necessarily common obligations

You are rather a Structured Group?

- A unique leader who sets the tone and listens (even if it can change according to the tasks to be done), an explicit group organization
- A common goal shared by all, common tasks
- A distance to the objective that is being debated



The eyes of others



- Say what each other trade could improve in its behaviours and ways to make the team work better?
- What do you think others expect as improvements in your profession?

Should you report??



Unfilled Air Treatment Conditions
(Defective System)

Single cause

Injection error, drug confusion

Involuntary arterial wound sutured by colleague
vascular surgeon present in the OR

Patient drop from operating table

Very important program drift,
almost systematic overrun

Defective medical device
on this day, unable to carry
out the intervention as
planned

Major
Consequences
for the Patient

'Mood crisis', noisy conflict
between doctors

inadequate number of anesthetists for
open rooms

Patient moved up too early

Arthroscopy side error

Late surgeon not present at Checklist

Incomplete or absent patient
record

Multiple causes



The Mathematics of Synergy

Synergy exists in a group when the group performance exceeds the sum of individual performances.

In a crew of two:

Good Synergy $1+1>2$

Synergy is poor, or lacking, when the group performance is less than the sum of individual performances

Poor Synergy $1+1<2$



A collection of high-performing individuals does not always make a good team; equally a 'superplayer' is useless if the rest of the team does not support him fully. Some teams perform incredibly well without star performers, when they work in synergy.



Essentials of Synergy

- **Create Synergy**
 - Define overall objectives.
 - Define performance expectations and level of delegation.
 - Invite all staff members with concerns to express them.
 - In brief, start to build a shared mental model of the situation by clarifying and explicating all intentions, and establishing an atmosphere conducive to the free and open exchange
- **Maintain Synergy with synergy tips**
 - Find out each member's name and greet them, by name. (*A person with no name does not exist* - Egyptian proverb)
 - Take the time (a few seconds) to look at each member and say "Hello X".
 - Encourage your fellow-workers: know how to say, "thank you". Generate satisfaction with a job well done so that your fellow-members are keen to work with you again.
- **Debrief**
- Constructive debriefings are vital to synergy.
 - Discuss any incidents or conflicts, even if only minor
 - Have each member express his opinion
 - Clarify any misunderstandings
 - Emphasise positive behaviour



NEVER BE AFRAID TO SAY WHAT YOU FEEL

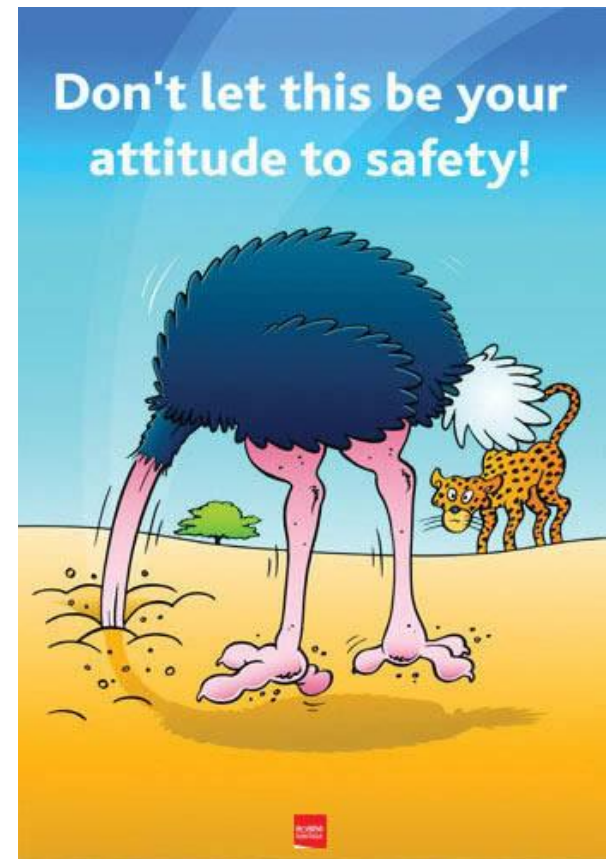


- A junior surgeon on duty at the OR
- Patient coming for a swollen knee: The junior surgeon decides an arthroscopy
- The anaesthetist called for a loco regional anesthesia with a proximal tourniquet
- 15 minutes later: this is clearly a non-standard case. The junior leaves the OR to the corridor without any word for the anaesthesiologist to call her senior surgeon
- 23 minutes : The junior surgeon returns and resumes the procedure
- 38 minutes: The junior surgeon leaves again to phone the senior (ask for help ...),
- Time passes: The blood pressures continues to rise, the anaesthetist decides to release the tourniquet (to avoid ischemia)
- The surgeon comes back, totally upset and stressed...



HRO High Reliability Organizations

- **5 Principles of a High Reliability Organization (HRO)**
- **Preoccupation with Failure**
- **Reluctance to Simplify**
- **Sensitivity to Operations**
- **Commitment to Resilience**
- **Deference to Expertise**





The recalcitrant in the team

□ Example

- A professional who refuses to use the prescribing software and uses personal documents; .. which does not come to the staffs (unless constrained) and .. which always speaks negatively to criticize

How do we control, how we manage, what happens?





MANAGING STRESSFUL CONDITIONS

2017

34

2017 Boylston, MA

T



Film : atterrissage sur l'Hudson river



2017

2017_Beyrouth_MTT



Personal stressors / Stress and life

*Excerpts from the
Holmes & Raye
Social Readjustment Scale*

100	Death of a spouse
73	Divorce
65	Separation
63	Death of a near relative
53	Personal injury or illness
50	Marriage
47	Loss of a job
39	Sex difficulties
38	A change in financial situation
26	Spouse begins or stops work
23	Trouble with Boss
20	Change of residence
16	Change of sleeping habits
12	Christmas

- Events in daily life create stress, even when they are deliberate (house-moving) or happy events (marriage). Even minor daily events, such as family disagreements, frustrations (home computer problems, car repairs) or worries (financial, health problems, etc.), create stress.
- **Stress is additive**; the higher the score, the more susceptible one becomes to stress-related illness.



Recognising the signs of stress

- Thematic vagabonding: inability to stay on the topic and see it through to its conclusion
- Simplification or 'tunnel vision': focus on the simple, manageable (comfortable) details, while ignoring the larger, more consequential but threatening issues.
- Decreasing willingness to make decisions: decisions are postponed; fewer decisions are made, decisions that are made take longer to make
- Tendency to delegate: try to shift decisional responsibility to others
- Tendency to externalise: try to find external reasons for the failure
- Reduction in the number of self-reflections: this in turn reduces the person's ability to learn and change direction if needed. Reduction in the number of plans
- Fixation, mental block: It becomes impossible to go back, & consider other solutions.
- Increase in risky behaviour: people are prepared to put up with a greater number of risks if they have previously failed. They want to master the situation 'at any price'.
- Increase in violations: the more they fail, the less they care about sticking to the rules. 'The end justifies the means.'
- Increased tendency to escape: more pauses, more irrelevant conversation, more trying to get away from the situation even if only figuratively
- Confirmation bias: they look only to confirm their hypothesis, they do not seek disconfirming evidence, Excessive hurry
- Regression: a return to earlier habits



Four communications to be distinguished

- **Factual level or “informative stake”**
 - The first function of communication consists in transmitting and receiving information.
- **Self-disclosure level or “self-positioning stake”**
 - Communication also involves a certain amount of self-disclosure. We interact in a way that projects an image to others. We may attempt to project a particular identity for many purposes. For example, we may wish to play a preferred social role (e.g., the severe physician, the nice resident, etc.) or perhaps to get or defend a particular territory (“turf”).
- **Appeal level or “persuasion stake”**
 - Communication often includes an attempt to influence, convince, or persuade others, or to get them to do something that we want.
- **Relation level or “relational stake”**
 - The last main function of communication is to regulate the communication relationship itself. Getting the communication started and maintaining it over time is a fragile process, especially if the people don't know each other very well. Think for example about a young resident to make a care with an older, senior physician. Part of the communication will be about opening and maintaining the communication itself.

The mathematics of synergy

Synergy exists in a group when the group performance exceeds the sum of individual performances.

In a crew of two:

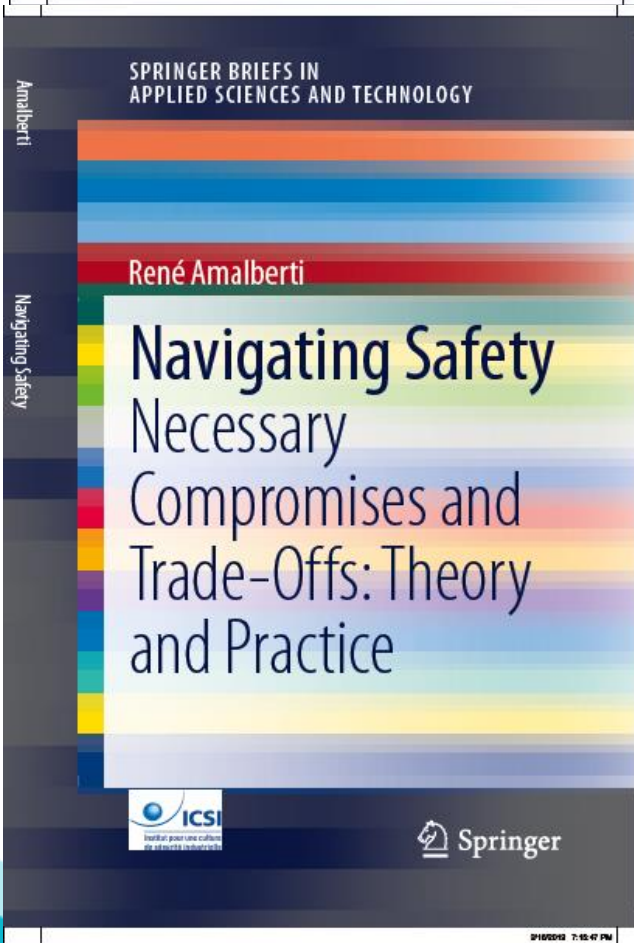
Good Synergy $1+1>2$

Synergy is poor, or lacking, when the group performance is less than the sum of individual performances

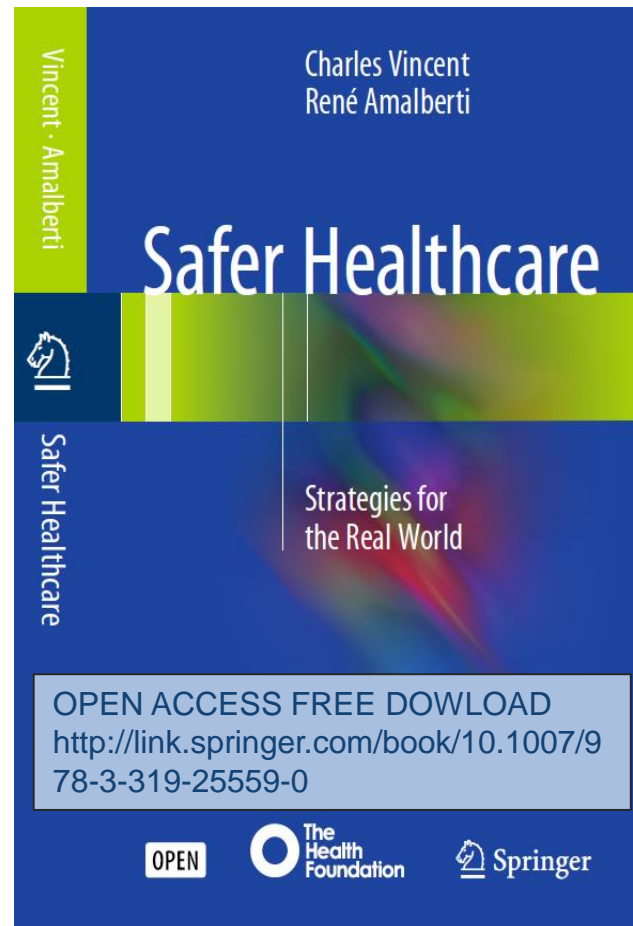
Poor Synergy $1+1<2$



ALSO IN FRENCH, SPANISH, PORTUGUESE



ALSO IN SPANISH, PORTUGUESE, JAPANESE, CHINESE



ALSO IN SPANISH,
ITALIAN



