Behavior & Infection Control

Prof. Andreas Voss, Radboud University Nijmegen Medical Centre
Sponsored by WHO First Global Patient Safety Challenge – Clean Care is Safer Care

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Andreas Voss, MD, PhD
Canisius-Wilhelmina Hospital and
Radboud University Nijmegen Medical Centre
Netherlands

Hosted by Hugo Sax, MD
University Hospital, Zurich, Switzerland

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Psychological models & Healthcare

• .... used to understand and predict behavior, but (so far) hardly used in healthcare
• Theory of Planned Behavior (TPB)
• Social Cognitive Theory (SCT)
• Operant Learning Theory (OLT)
• Common Sense Self-regulation Model (CS-SRM)
• Stage Models (SM)
• Implementation Intention (II)

Bonetti et al. Implementation Science 2010;5:20

Influence

• While we wish to make the most thoughtful, fully considered decision possible ...

we frequently resort to comply on basis of a single piece of information (trigger)

• “Click-whirr” (automatic response, fixed action pattern)
  – Mother turkey feeds chicks at the sound of cheep-cheep
    • Stuffed “pole cat” (natural enemy) ➔ rage
    • Stuffed pole cat with cheep-cheep ➔ feeding

Triggers for compliance

• Commitments
• Opportunities for reciprocation
• Compliant behavior of similar others
• Feelings of liking & friendship
• Authority directives
• Scarcity information

Commitments

• Shortcuts – judgmental heuristics
• Contrast principal
• Consistency

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Shortcuts – judgmental heuristics

• “Expensive = good” (and opposite)
• “If an expert said so, it must be true”
  – Airline industry “captainitis”
• “Because”
  – Increase compliance even if no reasoning follows
    (example cutting lines)
  – Possibly based on “because” … “just because” of
    parents when answering their children’s questions

Contrast principal

• Perceptual contrast
  – Buying suite and sweater \(\rightarrow\) expensive item first
  – Selling the car first, than the options

Perceptual Contrast

Consistency

• Most people have a strong desire to look
  consistent within their words, beliefs, attitudes
• Whenever one takes a stand that is visible to
  others, there arises a drive to maintain that
  stand in order to look like a consistent person.
• Therefore, written-down and publicly made
  commitments can be used to influence others
  and ourselves

Consistency

• At the beach
  – Leaving a blanket with valuables – pretended theft
  – 4/20 people in the area reacted
  – Saying “watch my things” first \(\rightarrow\) 19/20 reacted

Food-in-the-door (1)

• Question to home owners – place large billboard
  “Drive Carefully” in your lawn
• Two groups: A) 17% complied
  B) 76% complied
• Why the difference between A + B ?

Food-in-the-door (1)

B was asked a few weeks before to display a small
3x3in sign in window “Be a safe driver”

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Opportunities for reciprocation

- “we are obligated to future repayment”
- Regan et al. “Coke experiment”
  - Joe gave others (unasked for) a drink. Later asked them to buy raffle tickets from him
  - those who got a Coke bought more tickets
  - those you “liked” Joe bought more tickets
  - but … relationship between “liking” and compliance wiped out in those that received a Coke!

"a feeling of indebtedness by doing us an uninvited favor"

Contrast & consistency principle applied in infection control?

- Key-person as role-models
- Published list of supporters/let them sign a pledge
- Pre-prime your customer
  - Would you (theoretically) be supporting our goals? Followed by a visit to commit them to IC

Examples of reciprocation

- Mailing a $5 gift along with a survey was twice as effective as a $50 payment for sending it back (James & Bolstein 1992)

- a small initial favor can produce a sense of obligation to agree to a larger return favor, since most of us find it highly disagreeable to be in a state of obligation

Reciprocation techniques

- Reciprocal concessions
  - Boy scout selling $5 tickets for Saturday night event, when rejected offering $0.50 candies (buyer feels that second request is a concession to him)

- Rejection-then-retreat strategy
  - Over ask first, than come with intended amount
  - Ask volunteers for 1 week of community service than offer 1 hour
  - Rejected than retreat group has a higher compliance to actually do that service (83% vs. 50%)

- Benefactor-before-beggar-strategy

Benfactor-before-beggar-strategy

Disguised Krishna arrested for soliciting without a license when pressing candy canes on shoppers and than asking for donations

→ reciprocity rule

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Benefactor-before-beggar-strategy

A nice Christmas gift for your HCWs – shortly before launching your HH campaign

Compliant behavior of similar others

• Principle of Social Proof
  – Important means that people use to decide what to believe or how to act is to look what other believe or do

• Social proof is most influential under two conditions
  – Uncertainty
  – Similarity

Principle of Social Proof

• “We view behavior as correct to the degree we see other performing it”
  – When lots of people do it – it must be right

50 million can’t be wrong

“people want to be part of the majority”

Social proof - examples

• Laughing tracks
  – Others laugh = it must be funny
    • we react to the sound (even if fake)
      – not the content
    • works even if the sound is artificial

• Church usher salting collection baskets

What is going to happen?

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Pluralistic ignorance

Uncertainty
Heart attack or drunk?
Other bystanders reduce personal responsibility

Using principles of social proof in infection control?

• Never again start a lecture with only 40% disinfect their hands ...
  – “all HCW agree that HH is the most important …”
• Pay people to be the good example (role models)
• Movies with correct behavior around the hospital
• Campaign logo/IC-logo worn by all KOLs

Feelings of liking & friendship

• “We most prefer to say YES to the request of people we know and like”

• Factors leading to liking:
  – physical attractiveness (halo effect)
  – similarity
  – familiarity
  – praise
  – association

Halo effects

• Occurs when a positive characteristic of a person dominates the way a person is viewed
  – Good-looking = talent, kind, honest, intelligent
  – Works in many situations: even judicial process
  → handsome men lighter sentences

Similarity

• “We like people that are similar to us”
  – more likely to help those that dress like us

Compliments

• “We are phenomenal suckers for flattery”
  – Positive comments produce just as much liking for the flatterer independent if they were untrue or true

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### Association
- An innocent association with either bad or good things will influence how people feel about us or a product
  - The good looking models next to the car
    - Rating of identical car changed with and without model
    - Men didn’t believe that their judgment was influenced

- SALE
  - Buying becomes more likely because it is associated with good experience in the past

- Celebrities and advertisement
  - Establish a connection; it doesn’t have to be a logical one, just a positive one

### Can you think about a situation in which you could use this?
- Praise instead of criticize!
- Let others report about the outbreak & extra measures
- Infection Control luncheon
- Use a (local) celebrity (non-medical) to advertise for Infection Control

### Authority directives
- Power of authority (Milgram study, 1974)
- Symbols of authority
  - Titles
  - Clothing
  - Automobiles

### Power of authority (Milgram study, 1974)
- Appearance of authority is enough to get us into the *click, whirr* mode
- Symbols of authority
  - Titles
  - Clothes
  - Trappings

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Titles

• Prestigious titles lead to height distortion
  • Visitor to college presented as “Student” to “Professor” at 5 different levels, college students than asked to estimate length: Δ 0.5 per category or 2.5 in overall
  • Size and status is related

Clothes

• Request by well-dressed person is more frequently obeyed
  • Man walking crosses red-traffic light: in suit versus shirt & trousers
  • 3.5 x as many people followed suited jaywalker

Can you think about a situation in which you could use this?

• Start wearing a tie?
• Get an impressive office
• Meet and be seen with senior clinicians and CEO
• Use your Porsche to work → would achieve the opposite in the NL

Scarcity information

• People assign more value to opportunities when they are less available
  • “limited number” and “deadline”
  • Difficult to get = valuable
  • Loosing freedom of choice → increases wish
• Psychological reactance
• Scarcity and information

Psychological reactance

• “Things that are difficult to get are better”
• When free choice is limited or threatened the need to retain our freedom makes us want them significantly more
  • “Terrible two and equally desirable toys of which one behind a Plexiglas barrier
  • Parental interference with young love

Censorship

• Response to “banned” information
  • Want the information even more
  • Believe the information more even though it wasn’t received

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Commodity theory

- Sale of product
  - Standard info
  - Standard info + upcoming scarce
  - Standard info + scarce exclusive source  x 6

‘Feeding frenzy’

Humans and animals alike lose perspective on what they want and begin striking at whatever is contested

- School of fish when loose bait in water will snap on bare hook
- Overspending during auctions
  - $145,000 for John T. Saturday Night Fever polyester suit, because two bidders became
    looked into a competitive bidding

Can you think about a situation in which you could use this?

- Introduction of new hand-rub or catheters in your hospital
  - Present & announce, restrict it to ICU and those units that first order
  - Announce a limitation of hand-rub and then find a “new source” of supply

Summary

- This were just a few examples of one book
- In order to effectively implement infection control we need more knowledge in behavioral science
- Behavioral science furthermore offers explanations we see in healthcare settings

The Spreading of Disorder

- Orderly alley
- No graffiti sign
- Flyer on handlebar
- avoid littering

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The Spreading of Disorder

- Orderly alley: 33% littering
- Graffiti alley: 69% littering

When people observe inappropriate behavior, this weakens their concern for appropriateness.

We need “order” in our hospitals and people showing appropriate behavior!