QUALITIES OF "WICKED" PROBLEMS (RITTEL & WEBBER, 1973)

- MULTIPLE STAKEHOLDERS AND PERSPECTIVES
- INTERCONNECTEDNESS
- AMBIGUITY
- UNIQUENESS
- SHIFTING CONTEXT

Effective consent in %
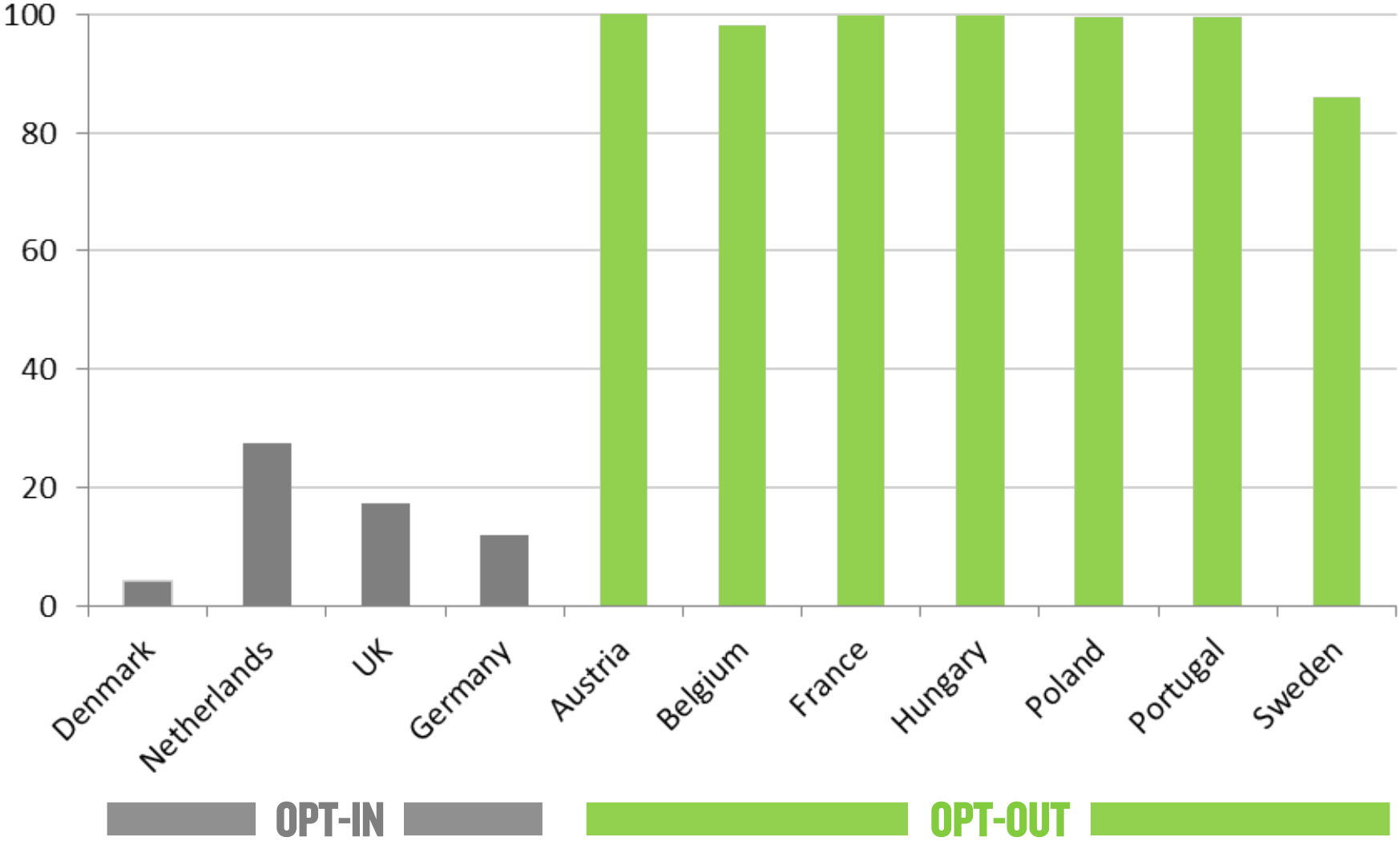
Johnson, E. J., & Goldstein, D. G. (2003). Do defaults save lives? *Science*, *302*(5649), 1338–1339

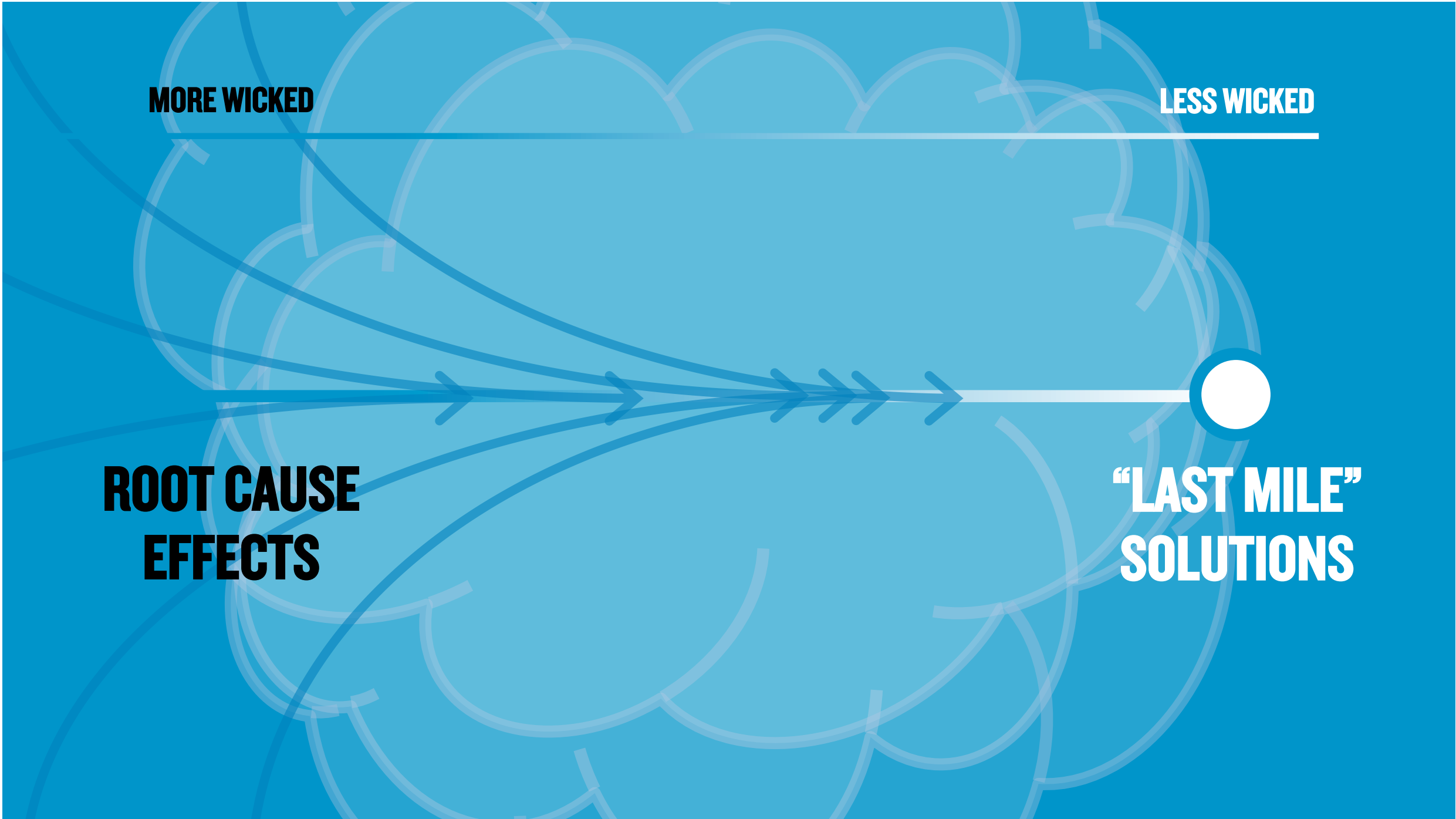# LIMITATIONS OF AVAILABLE ORGANS

INCREASE NUMBER OF ORGAN DONORS

MORE WICKED

LESS WICKED

ROOT CAUSE
EFFECTS

"LAST MILE"
SOLUTIONS

Underlying wishes and nudged choices.

Lin Y[1], Osman M[1], Harris AJL[2], Read D[3].

⊕ **Author information**

Abstract

Is the inferred preference of a deceased relative to donate his or her organs stronger when the choice was made under a mandated rather than under an automatic default (i.e., nudged choice) legislative system? The answer to this is particularly important, because families can, and do, veto the choices of their deceased relatives. In three studies, we asked American and European participants from countries that have either a default opt-in or a default opt-out system to take on the role of a third party to judge the likelihood that an individual's "true wish" was to actually donate his or her organs, given that the decedent was registered to donate on the organ donation register. In each study participants were randomly assigned to one of four organ donation legislative systems (default opt-in, default opt-out, mandated choice, mandatory). Overall, regardless of which country participants came from, they perceived the donor's underlying preference to donate as stronger under the default opt-in and mandated choice systems as compared with the default opt-out and mandatory donor systems. We discuss the practical issues that result from using default systems in the domain of organ donation and propose potential ways to ameliorate the uncertainty around inferences of underlying preference from a nudged choice. (PsycINFO Database Record.

LIMITATIONS OF AVAILABLE ORGANS

INCREASE NUMBER OF ORGAN DONORS

FAMILIES CAN OVERRIDE CONSENT

MISPERCEPTIONS OF DONATION PROCESS	**HOT V. COLD STATE DECISION-MAKING**	**"LOSS" MEANS DIFFERENT THINGS**	**RELATIONSHIP-BUILDING V. LOGISTICS**
LIMITATIONS OF AVAILABLE ORGANS	**INCREASE NUMBER OF ORGAN DONORS**	**FAMILIES CAN OVERRIDE CONSENT**	**NEED TO WORK WITHIN TIME CONSTRAINTS**
DONOR COORDINATORS INCREASE RATES	**"VALUE EXCHANGE" + TRADEOFFS VARY**	**PATIENT DEATH = FAILURE TO PHYSICIANS**	**INCONSISTENT APPLICATION OF PROTOCOLS**
DIFFERENT LEVELS OF EXPERTISE	**TRANSPLANTS MATTER, NOT JUST ORGANS**	**LIMITED PRIOR EXPERIENCE WITH DONATION**	**PEOPLE INCENTIVIZED FOR DIFFERENT THINGS**

IT'S A COGNITIVE (THEREFORE BEHAVIORAL) PROBLEM

FOR FAMILIES

- More likely to **hear messages that patient is improving** rather than declining
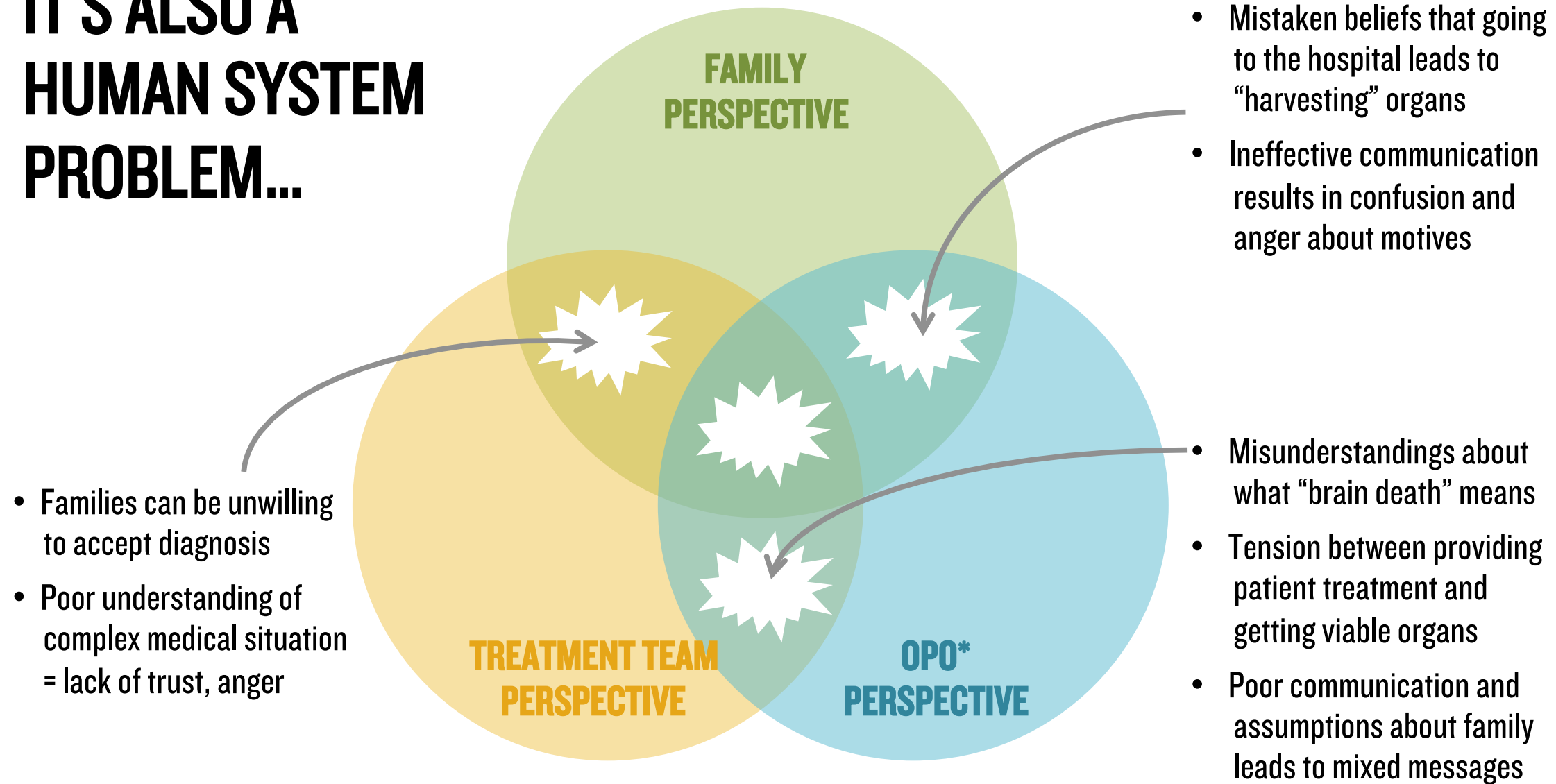- Concept of donation can **reinforce existing pre-conceptions**

FOR THE TREATMENT TEAM

- Familiar with **longer patient arc/diversity of outcomes**—donation scenario is not top of mind
- Donation **process is mysterious** for doctors

FOR OPOs

- Only called in when there is possibility of donation, so **never see non-donation situations**
- **Urgency** exaggerates need for quick pattern recognition

IT'S ALSO A HUMAN SYSTEM PROBLEM...

FAMILY PERSPECTIVE

TREATMENT TEAM PERSPECTIVE

OPO* PERSPECTIVE

- Mistaken beliefs that going to the hospital leads to "harvesting" organs
- Ineffective communication results in confusion and anger about motives

- Families can be unwilling to accept diagnosis
- Poor understanding of complex medical situation = lack of trust, anger

- Misunderstandings about what "brain death" means
- Tension between providing patient treatment and getting viable organs
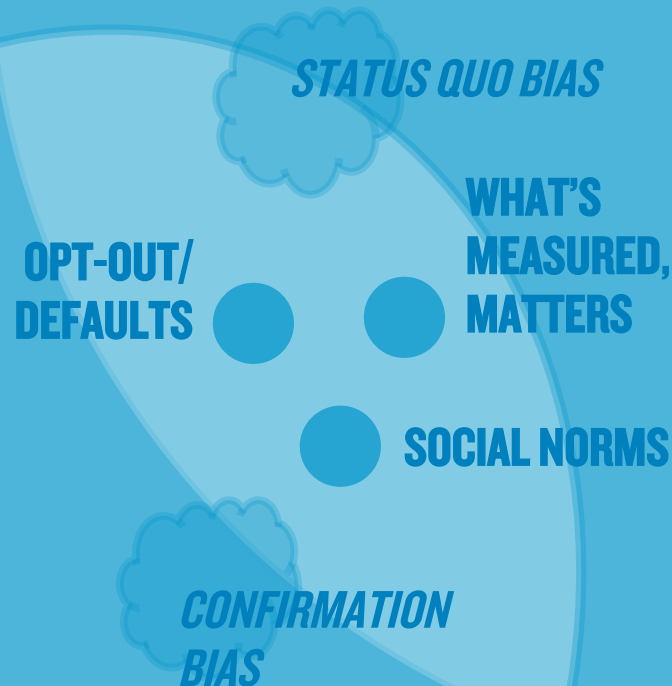- Poor communication and assumptions about family leads to mixed messages

*OPO = Organ Procurement Organization

I. DESIGN FOR CONDITIONS, NOT BEHAVIORS

SYSTEMS
TOP-DOWN

STATUS QUO BIAS

PROCESSES/STRUCTURES

POWER DYNAMICS

WHAT'S MEASURED, MATTERS

SENSE OF SELF

MOTIVATIONS

OPT-OUT/ DEFAULTS

LEVERAGE POINTS

DEFINITIONS

SOCIAL NORMS

UNINTENDED CONSEQUENCES

WHAT PEOPLE VALUE

MISCONCEPTIONS

CONFIRMATION BIAS

(LATENT) USER NEEDS
BOTTOM-UP

II. DIVERGE BEFORE CONVERGING
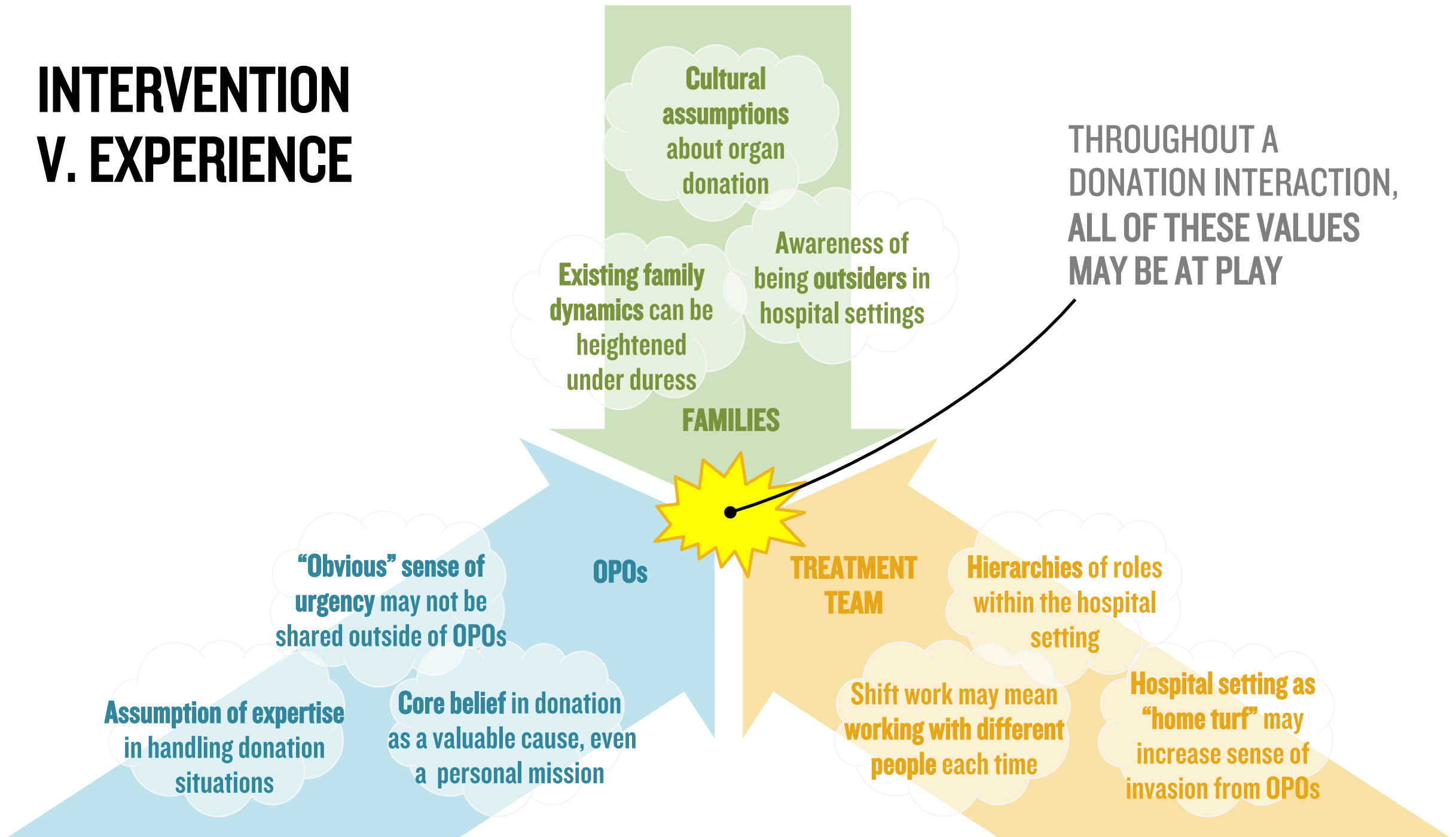
DIVERGE

CONVERGE

- **GENERATIVE RESEARCH** TO REFRAME PROBLEMS (ARE WE SOLVING THE RIGHT ONE?)
- FOCUS ON THE APPROPRIATE **UNIT OF ANALYSIS**
- **ORTHODOXIES:** "HOW THINGS WORK AROUND HERE"
- **ANALOGUES/PRECURSORS:** ADJACENT SPACE SOLUTIONS

BEHAVIORAL INTERVENTIONS TYPICALLY FOCUS ON **CHOICE ARCHITECTURE** AT THE **MOMENT OF ENGAGEMENT** TO ACHIEVE **BEHAVIORAL CHANGE**, OFTEN BY MAKING ACTIONS **TOO EASY NOT TO DO**

INTERVENTION V. EXPERIENCE

Cultural assumptions about organ donation

Existing family dynamics can be heightened under duress

Awareness of being **outsiders** in hospital settings

FAMILIES

THROUGHOUT A DONATION INTERACTION, ALL OF THESE VALUES MAY BE AT PLAY

OPOs

"Obvious" sense of **urgency** may not be shared outside of OPOs

Assumption of expertise in handling donation situations

Core belief in donation as a valuable cause, even a personal mission

TREATMENT TEAM

Hierarchies of roles within the hospital setting

Shift work may mean **working with different people** each time

Hospital setting as "home turf" may increase sense of invasion from OPOs

"COMPELLING EXPERIENCES" MODEL (5Es)

ENTICE	ENTER	ENGAGEMENT	EXIT	EXTENSION
	▶	**PEOPLE OFTEN FOCUS ON SOLVING HERE**	▶	

III. DESIGN FOR AGENCY, ARC, AND AMBIGUITY

ENTICE	ENTER	ENGAGEMENT	EXIT	EXTENSION
ATTITUDE AWARENESS AND RECEPTIVITY TO A SITUATION	**ABILITY** LITERAL AND/OR PERCEIVED CAPACITY TO MAKE CHOICES	**ACTION** THE MOMENT OF DECISION-MAKING	**ACHIEVEMENT** SENSE OF RESOLUTION OR CONFIRMATION	**ADVANCEMENT** MOMENTUM OR PROGRESS TOWARD LARGER GOALS
• *FAMILIARITY V. SIGNIFICANCE* • *PEOPLE HATE FEELING DUMB*	• *CONFIDENCE, COMPETENCE AND AGENCY* • *PROVIDING FIRST STEPS*	• *ADDING/REMOVING FRICTION* • *URGENCY*	• *COMPLETION OR CLOSURE* • *HOW IS "SUCCESS" DEFINED?*	• *FEEDBACK* • *REFERENCE POINTS FOR PROGRESS*

PRIOR EXPOSURE INFORMS ATTITUDES

SIGNIFICANT

FAMILIAR

UNFAMILIAR

INSIGNIFICANT

For families, accepting death in a donation scenario is scary and uncertain

For Treatment Teams, death is not unfamiliar, but donation is the exception, not the norm

For OPOs, "expertise bias" = assuming everyone shares their high familiarity with the process
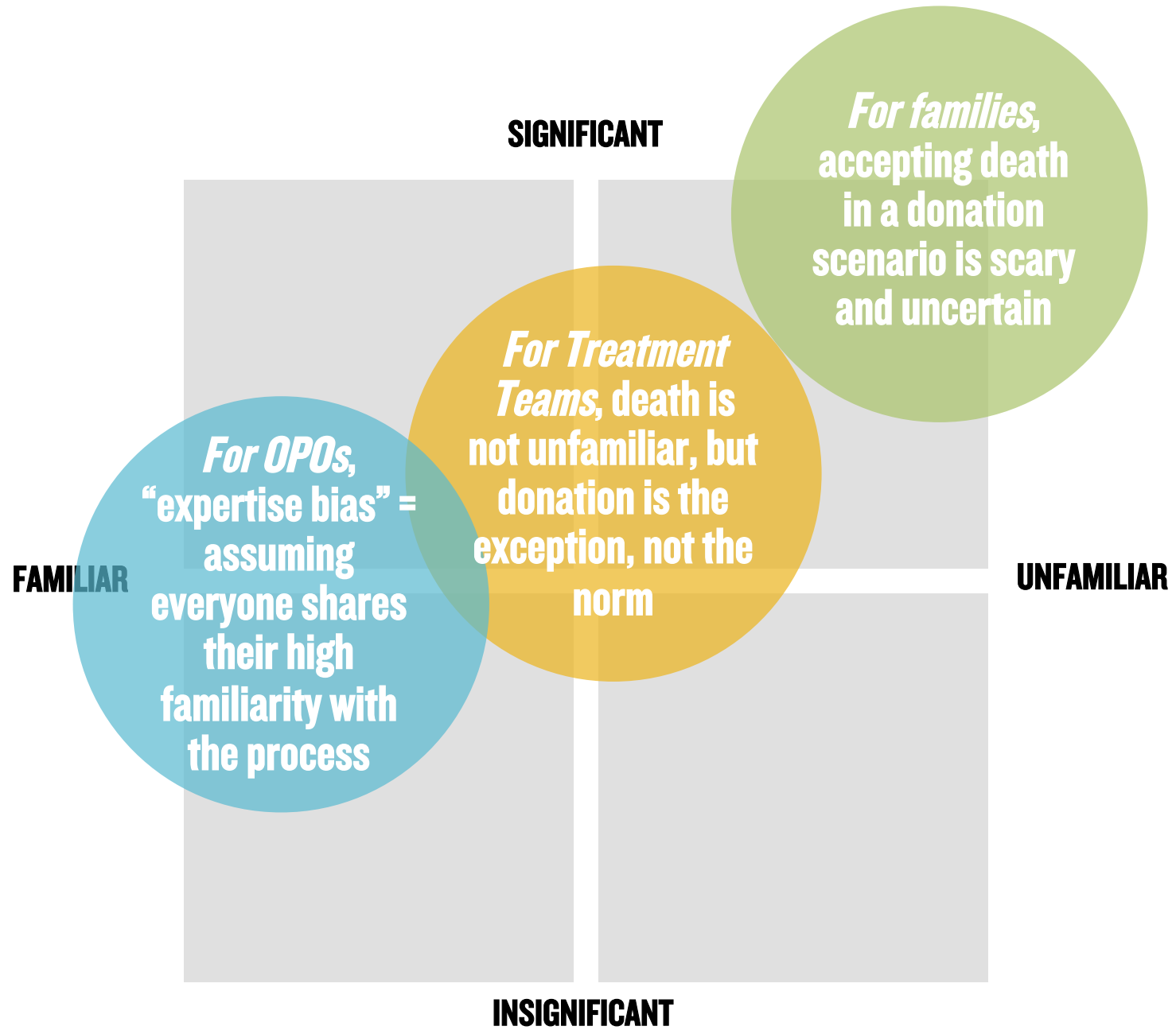
WE KNOW LOSS HURTS MORE THAN GAIN FEELS GOOD...

FOR FAMILIES

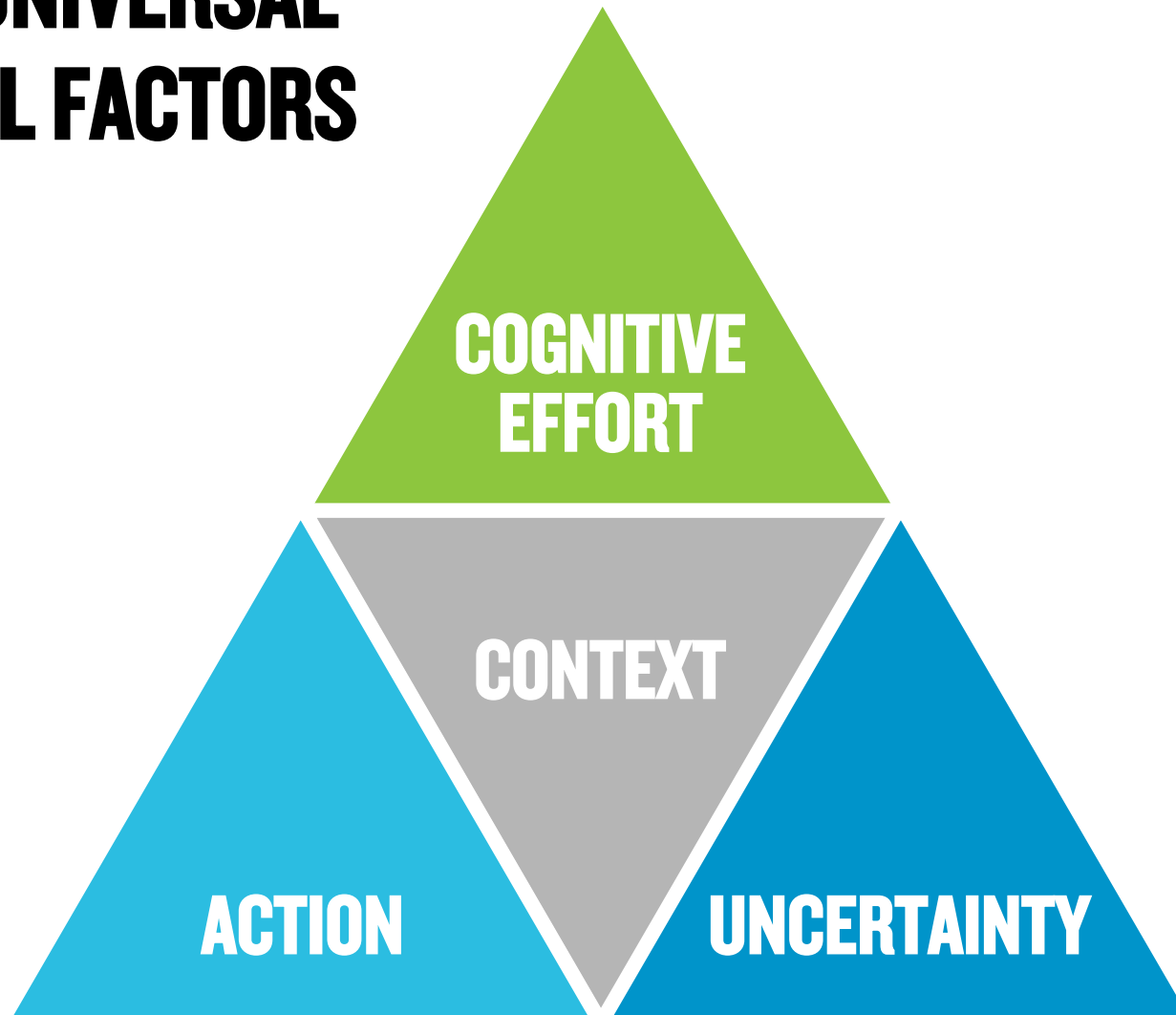- Loss of a loved one or family member
- Loss of a sense of control over what's happening

FOR THE TREATMENT TEAM

- Loss of a patient's life
- Loss of resources that might have gone to help another patient

FOR OPOs

- Loss of donation opportunity
- Loss of time to keep organs viable leads to urgency

IV. EXPLORE "UNIVERSAL" BEHAVIORAL FACTORS

IDENTITY
VALUE
STORY
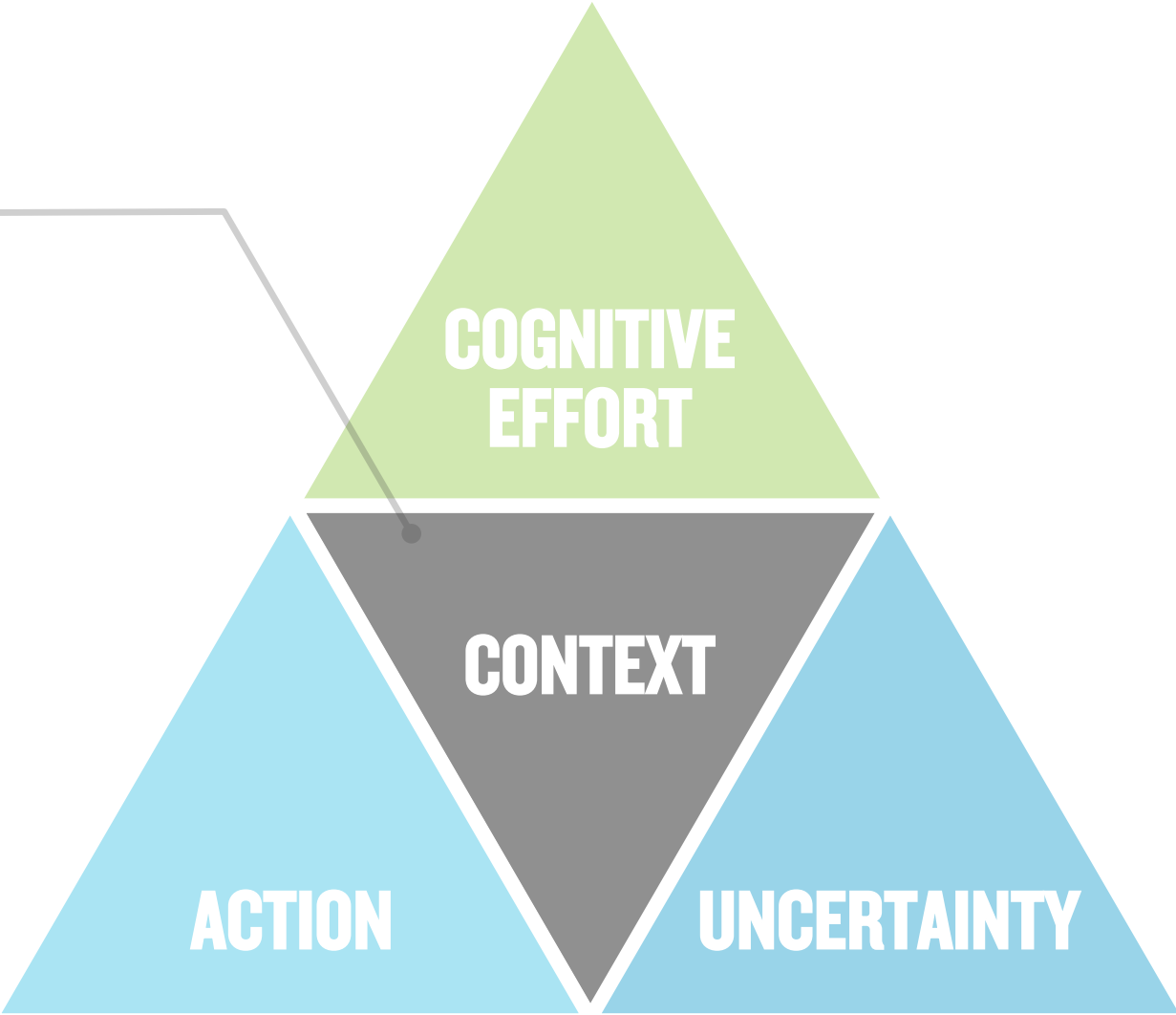
SIMPLICITY
STRUCTURE
SALIENCE

KINSHIP
PERSONAL ECONOMICS
WHAT JUST "MAKES SENSE"

COGNITIVE LOAD/SCARCITY
PRIORITIZATION
MENTAL MODELS

COGNITIVE
EFFORT

CONTEXT

ACTION

UNCERTAINTY
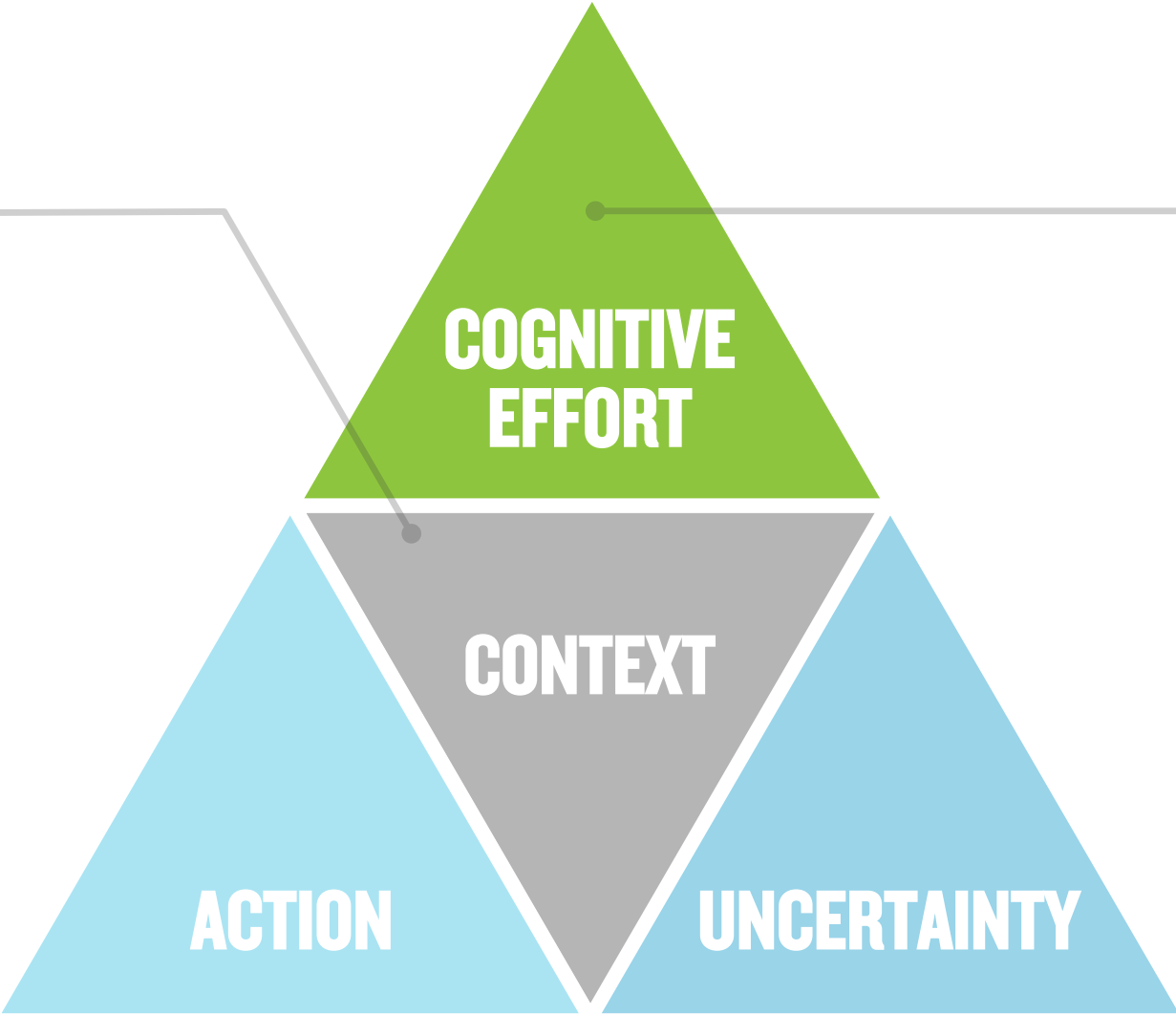
IDENTITY
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STORY

KINSHIP
PERSONAL ECONOMICS
WHAT JUST "MAKES SENSE"

SIMPLICITY
STRUCTURE
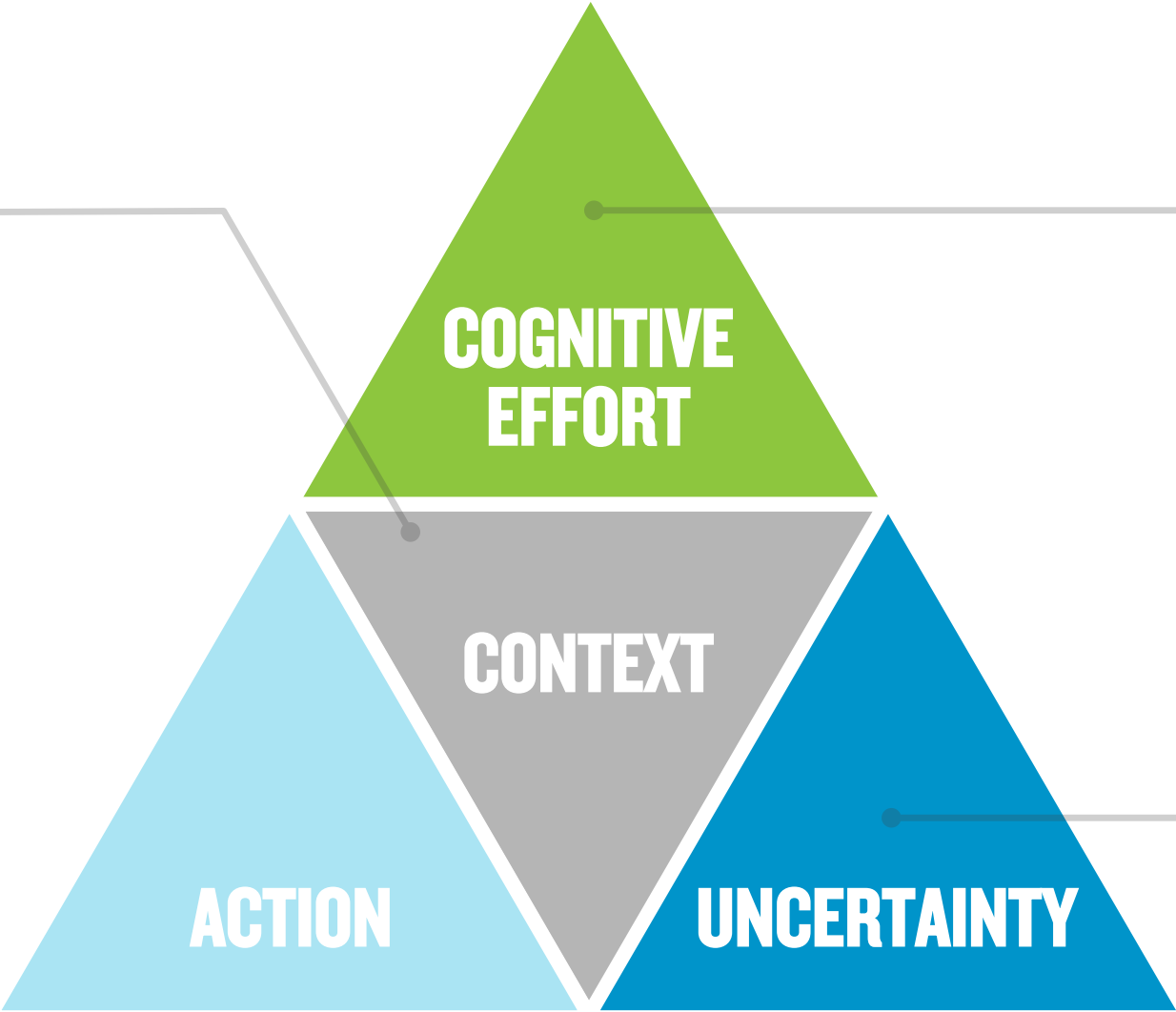SALIENCE

COGNITIVE LOAD/SCARCITY
PRIORITIZATION
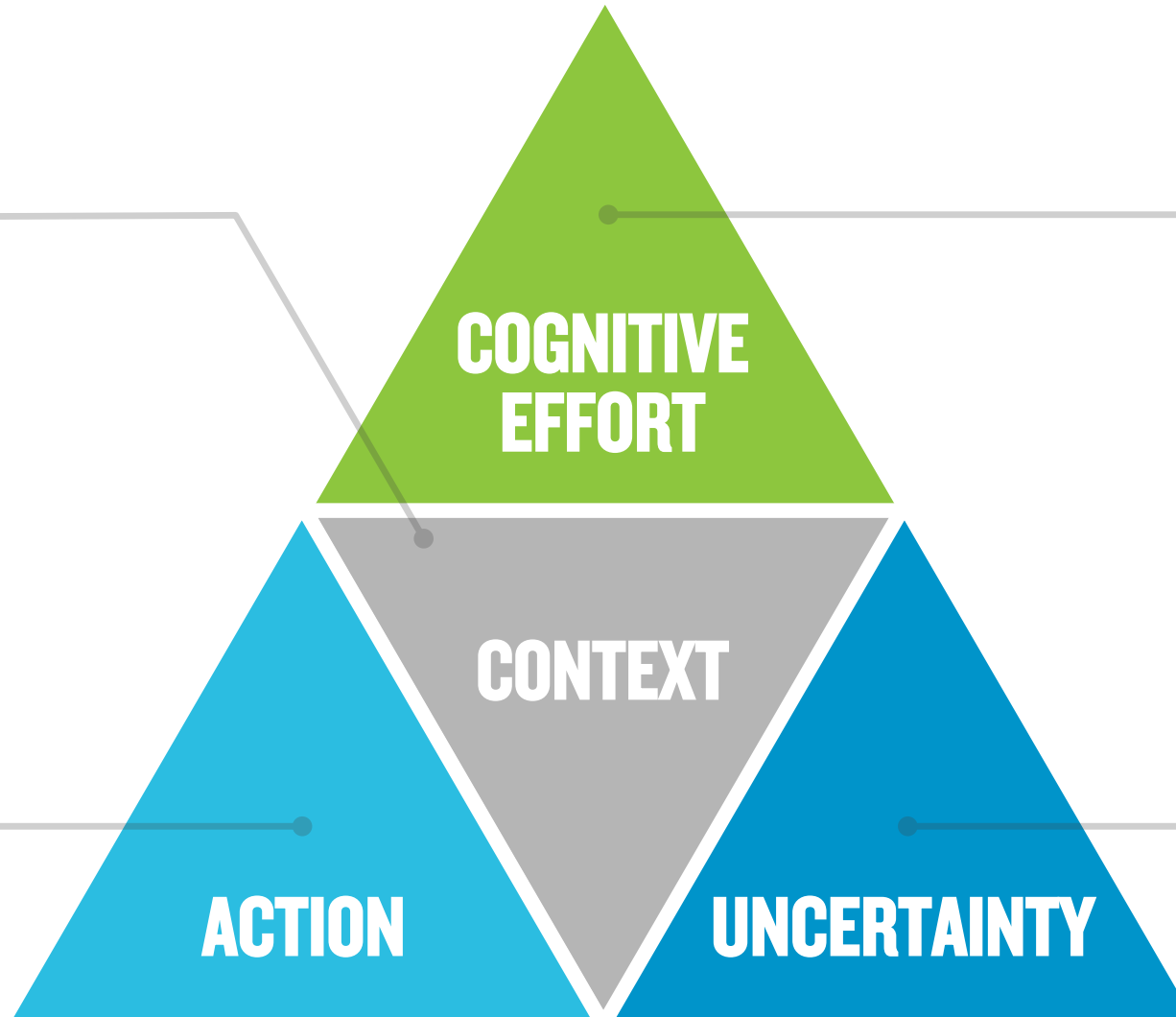MENTAL MODELS

REFERENCE POINTS
CONCRETENESS
TRADEOFFS

RELATIVE LOSSES AND GAINS
WHAT'S "NORMAL"?
THE FUTURE IS ABSTRACT

COGNITIVE
EFFORT

CONTEXT

ACTION

UNCERTAINTY

IDENTITY
VALUE
STORY

KINSHIP
PERSONAL ECONOMICS
WHAT JUST "MAKES SENSE"

SIMPLICITY
STRUCTURE
SALIENCE

COGNITIVE LOAD/SCARCITY
PRIORITIZATION
MENTAL MODELS

COGNITIVE
EFFORT

CONTEXT

BARRIERS/FRICTION
OWNERSHIP
INCENTIVES

TOO EASY NOT TO DO
SENSE OF INVESTMENT
URGENCY
CONTROL

REFERENCE POINTS
CONCRETENESS
TRADEOFFS

RELATIVE LOSSES AND GAINS
WHAT'S "NORMAL"?
THE FUTURE IS ABSTRACT

ACTION

UNCERTAINTY

SOLUTIONS MAY BE VARIED

FAMILY PERSPECTIVE

TREATMENT TEAM PERSPECTIVE

OPO* PERSPECTIVE

- **Rules and shared clarity about who leads when** increases confidence and consistency across interactions

- Awareness of **"hot" and "cold" states** helps improve communication
- **Externalizing group norms** can increase awareness of behavioral drivers
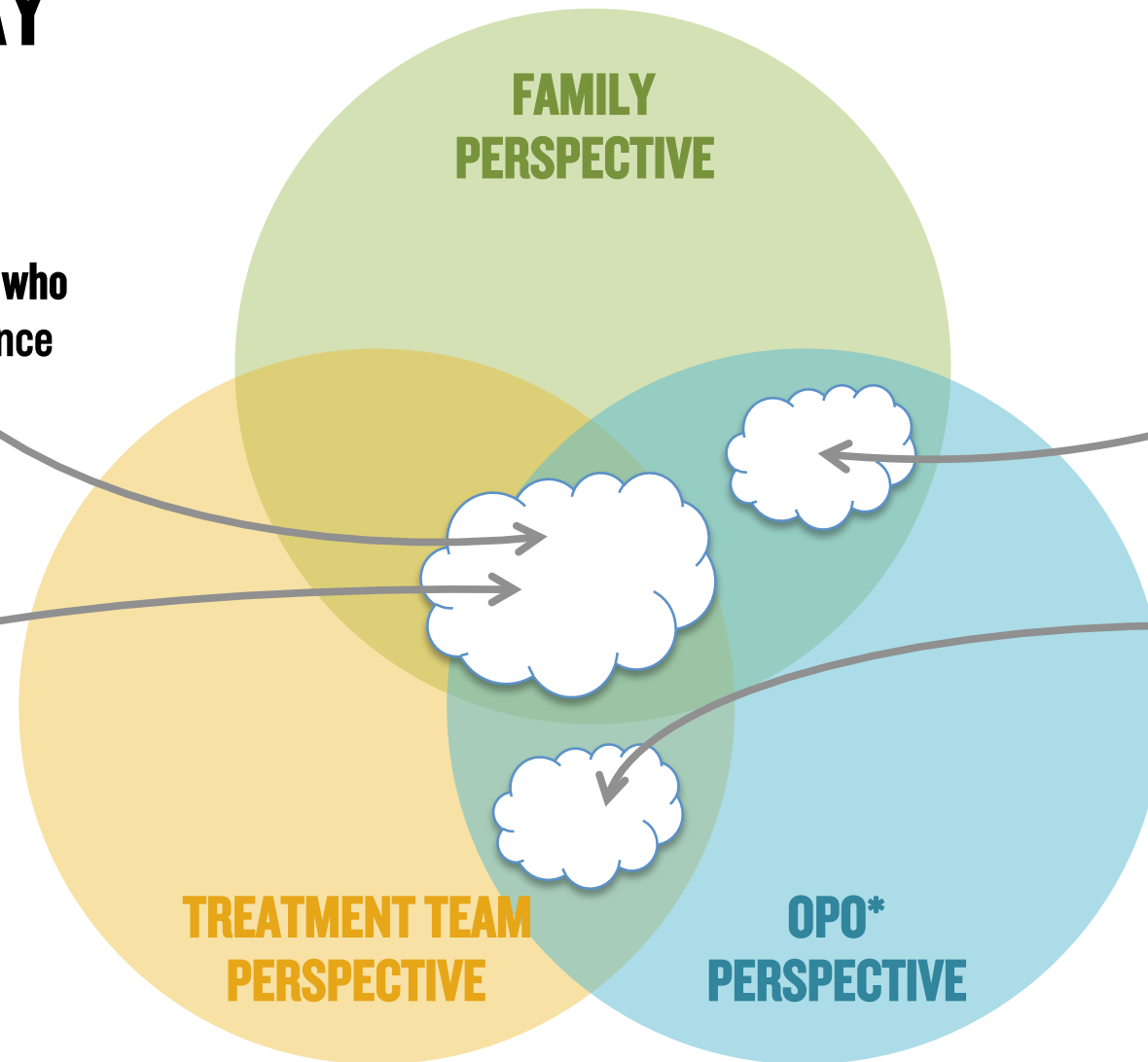
- **Set groundwork through framing, source and delivery mechanisms of messages** in advance

- **Debriefs** for all scenarios to capture lessons when they are fresh and reduce stigma

- **A process checklist** creates shared reference

- Increased understanding of **incentives/metrics** across stakeholders

V. CONSIDER ALL LEVERS (EVEN ONES YOU DON'T CONTROL)

PERSONAL APPEALS

(E.G. FRAMING, DIRECT APPEAL TO IDENTITY)

ENVIRONMENTAL CONTEXT

(E.G. PHYSICAL SPACE, SOCIAL OR CULTURAL REINFORCEMENT)

TOOLS OF THE TRADE

(E.G. DEVICES, MATERIALS, MECHANISMS, PROCESSES AND STRUCTURES)

RULES AND METRICS

(E.G. FORMAL POLICIES, PENALTIES, AND INCENTIVES)

ME WE TOOLS RULES

PERSONAL APPEALS
(E.G. FRAMING, DIRECT APPEAL TO IDENTITY)

ENVIRONMENTAL CONTEXT
(E.G. PHYSICAL SPACE, SOCIAL, OR CULTURAL REINFORCEMENT)

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stack**overflow**
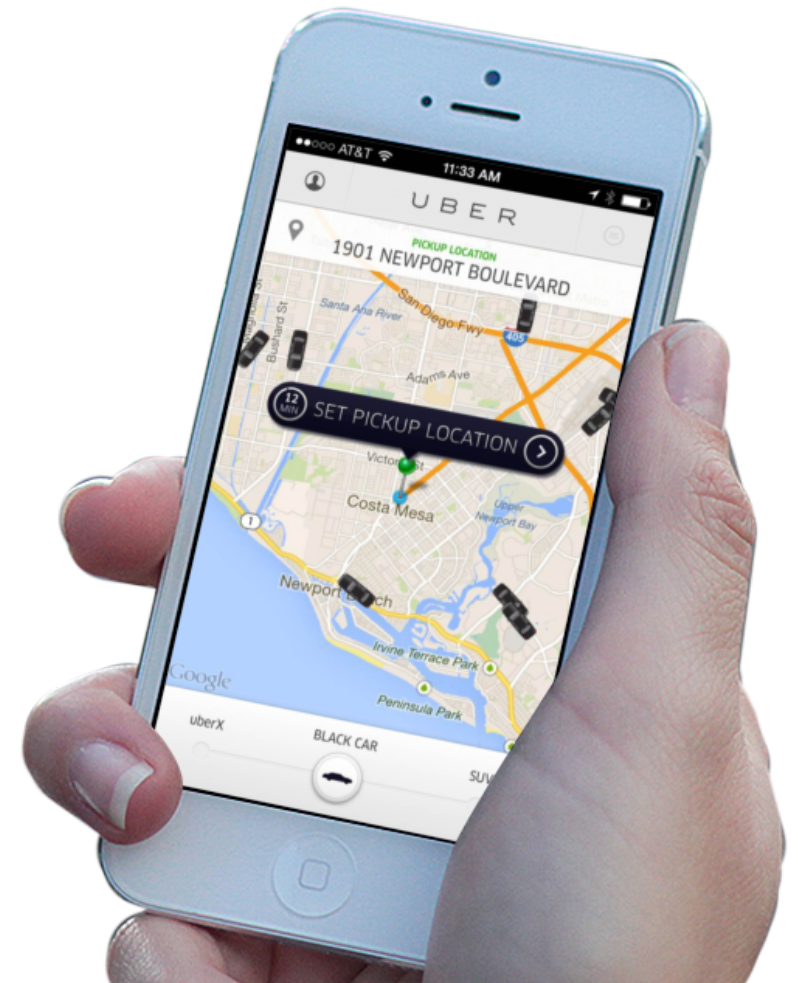
Code of Conduct

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Whether you've come to ask questions or to generously share what you know, join us in building a community where all people feel welcome and can participate, regardless of expertise or identity.

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"...EVEN WHEN USED, SUCH RIGOROUS METHODS DO NOT PRODUCE CERTAIN AND TRANSFERABLE KNOWLEDGE, BUT RATHER PROVIDE **PROVISIONAL AND ISOLATED KNOWLEDGE ABOUT 'WHAT *WORKED*'**"

Biesta, Gert. (2007), 'Why 'what works' won't work: Evidence-based practice and the democratic deficit in educational research', Educational Theory, 57(1): 1–22.

VI. GENERATE SPECULATIVE HYPOTHESES

ECONOMICS

ABSTRACT

THINK

MAKE

CONCRETE

BEHAVIORAL SCIENCE

ABSTRACT

THINK

MAKE

CONCRETE

DESIGN

ABSTRACT

THINK

MAKE
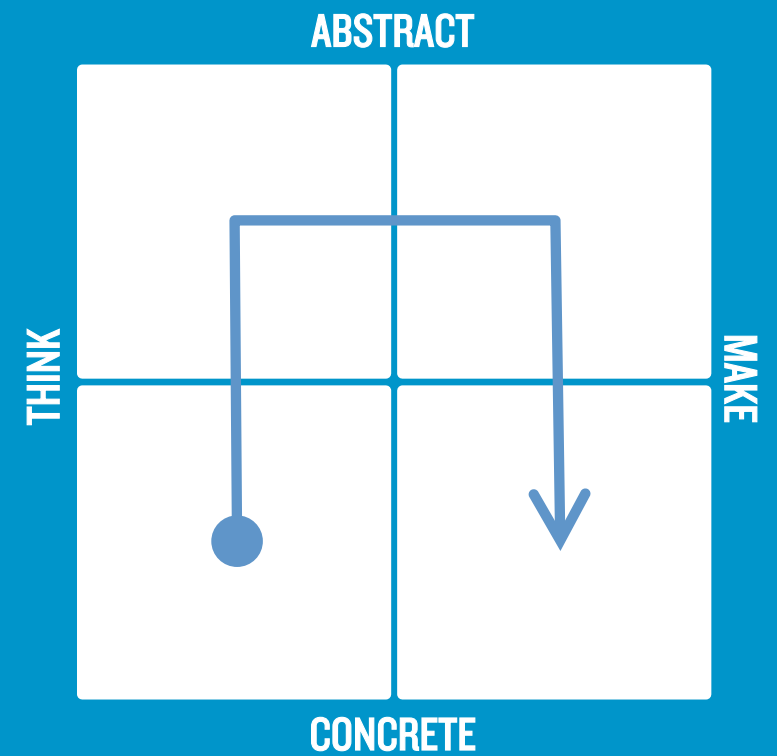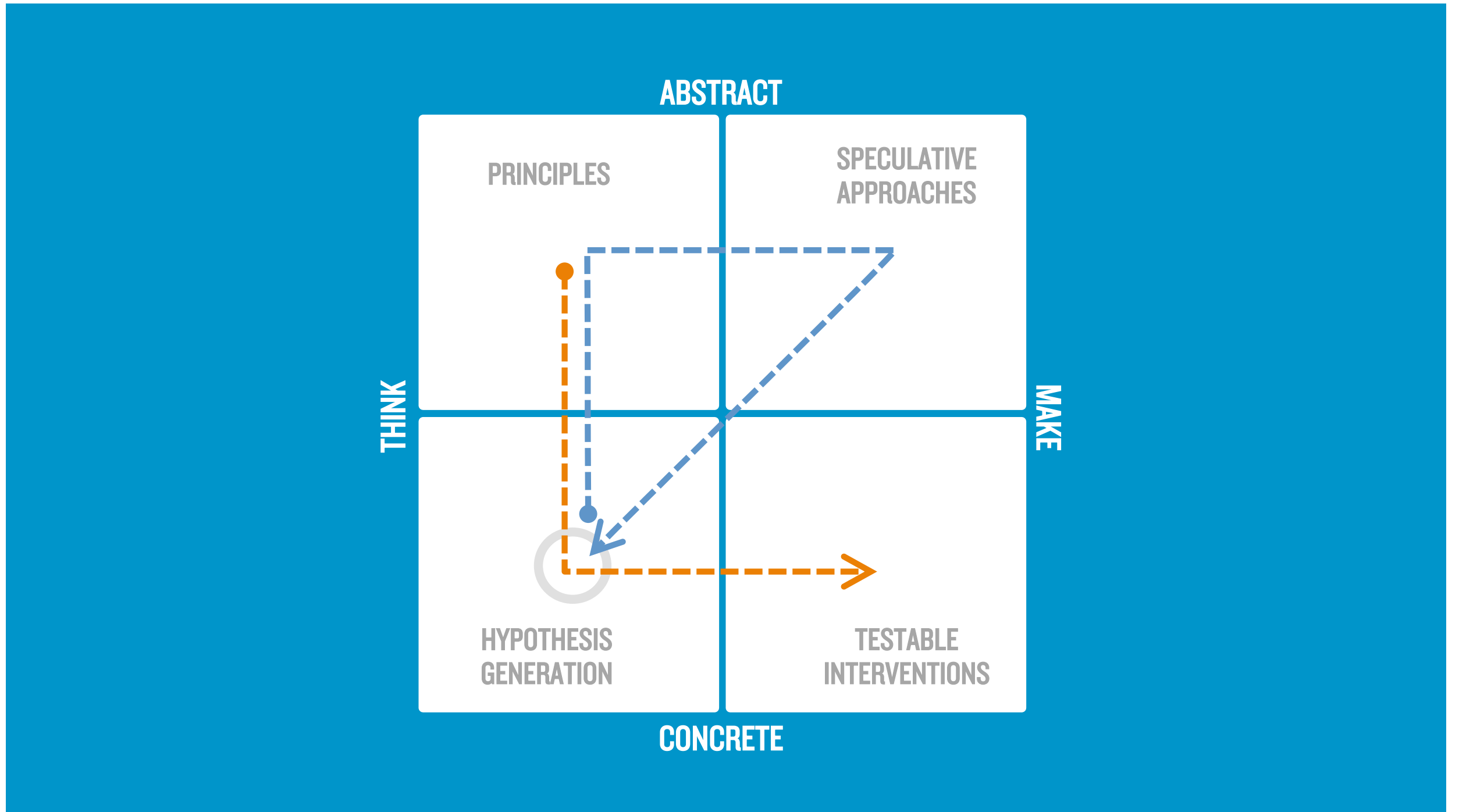
CONCRETE
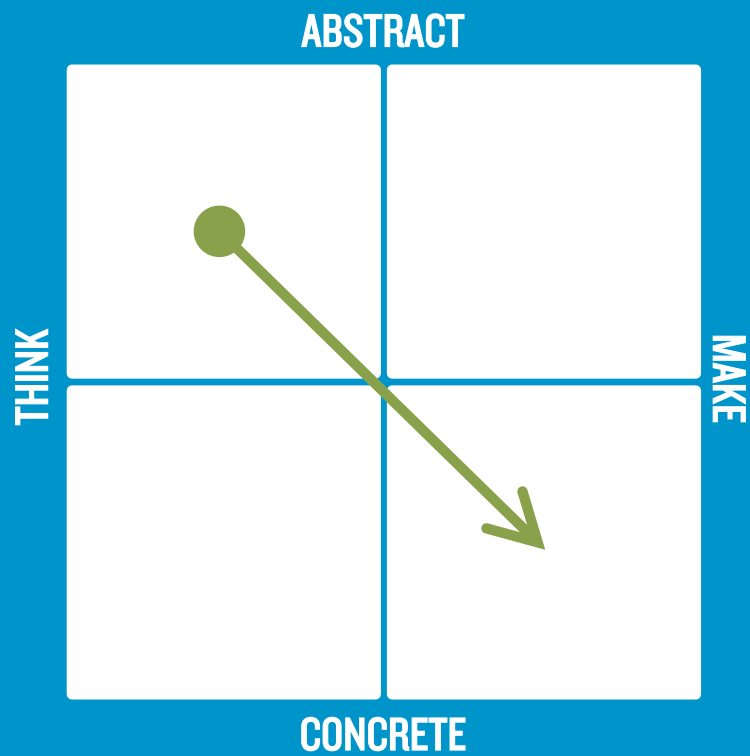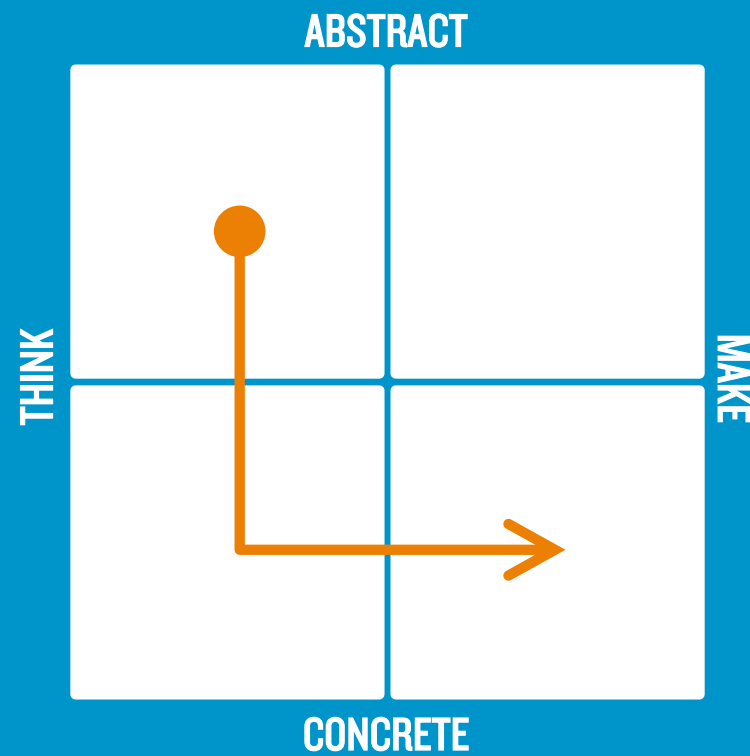
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