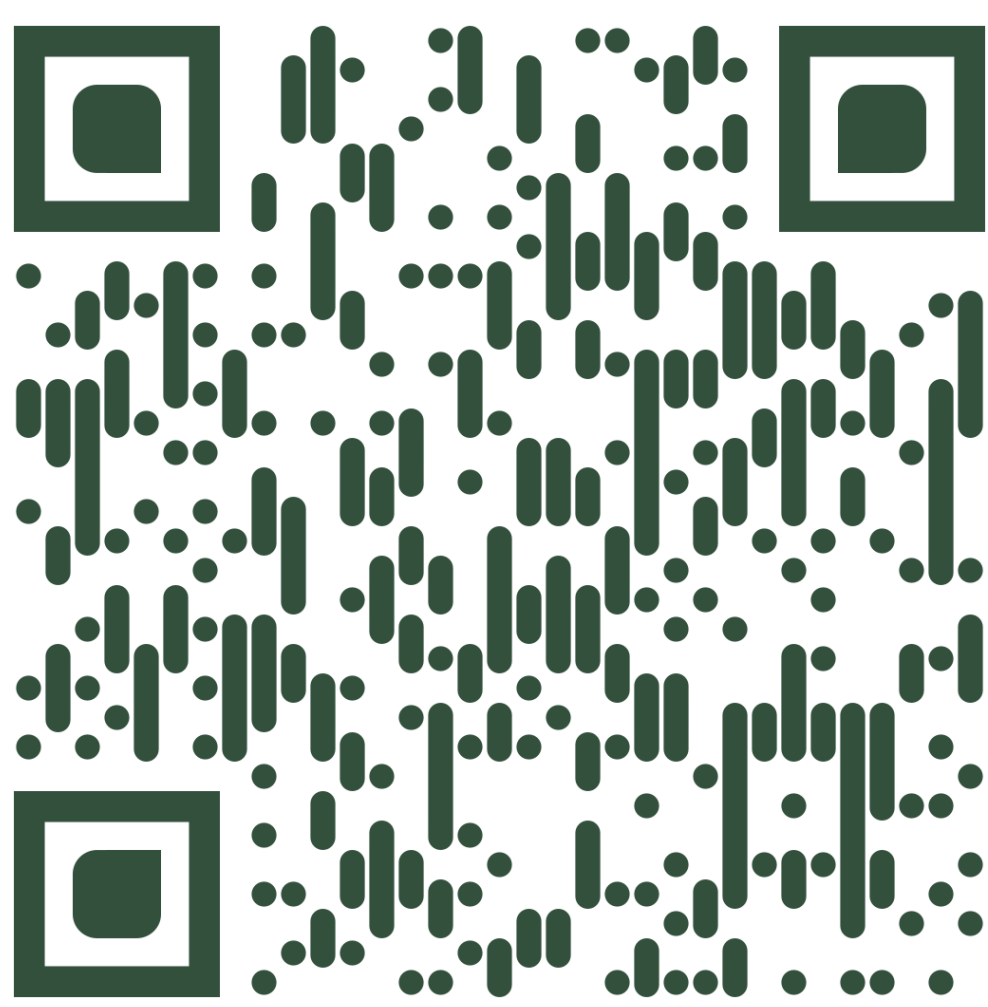


Development of a research tool leveraging theoretical frameworks to better understand One Health systems thinking

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To mobilise a **‘just transition’** in global food systems, we must first appreciate what key actors **think** and **feel**, as these influence how they **act**



^ read the full paper in CABI One Health



Background

- Mainstream global food systems challenge all One Health components: people, animals, and the planet
 - Industrialised animal-source food (ASF) production is particularly harmful
 - >80 billion land animals + trillions of farmed fish slaughtered for meat annually = widespread welfare concerns
 - ASF production is a key driver of the triple planetary crisis: biodiversity loss, climate change, pollution
 - Inequitable concentration of food insecurity and malnutrition in low- and middle-income countries, despite intensive production worldwide
- Urgent calls for a ‘just transition’ in global food systems
- Farmers are key actors in food systems reform, but need support, not pressure, in changing production practices – their livelihoods and own wellbeing is at risk
- Current research on livestock farmer attitudes, cognitions & behaviours is incomplete:
 - Theoretical underpinnings suboptimal for intervention design
 - Validity of measurement instruments often unclear
 - Siloed efforts = lack of comparability & reproducibility

Our aim was to develop a **holistic, repeatable** measurement instrument, with a **strong theoretical underpinning**, to enable researchers to **better understand One Health systems thinking** among livestock farmers, and others.

Our findings underscore the importance of **validating mappings of statements** against **theoretical models** to ensure **accurate identification** of behavioural determinants, informing **evidence-based intervention design**.

Methods

- Developed 78 statements relating to human, animal, or environmental wellbeing (n=26 each)
- Four independent researchers mapped each statement to the capability-opportunity-motivation-behaviour (COM-B) model and Theoretical Domains Framework of the Behaviour Change Wheel
 - Tested for inter-rater reliability
 - Resolved disagreements through discussion
- Piloted for acceptability with British livestock farmers

Final statement table mapped onto the COM-B model and Theoretical Domains Framework*

| Category | Statement | COM-B Component (capability) | COM-B Component (motivation) | Domain | Comment |
|----------|--|------------------------------|------------------------------|------------------------|------------------------------|
| Human | I know how to communicate with other people | Capability | Psychological | Skills | Interpersonal skills |
| | I have chosen bad habits to improve my wellbeing | | | Behavioural Regulation | Breaking habits |
| | I have chosen to improve my wellbeing | Opportunity | Physical | Knowledge | Practical knowledge |
| | I have chosen to improve my wellbeing | | | Resources | Resources/material resources |
| | I have chosen to improve my wellbeing | Social | Social influences | Social support | Social support |
| | I have chosen to improve my wellbeing | | | Social pressure | Social pressure |
| | I have chosen to improve my wellbeing | Automatic | Emotion | Affect | Affect |
| | I have chosen to improve my wellbeing | | | Rewards | Rewards |
| | I have chosen to improve my wellbeing | Reflective | Beliefs about Capabilities | Self-efficacy | Self-efficacy |
| | I have chosen to improve my wellbeing | | | Normative beliefs | Normative beliefs |
| Animal | I know how to communicate with other animals | Capability | Psychological | Skills | Interpersonal skills |
| | I have chosen bad habits to improve my wellbeing | | | Behavioural Regulation | Breaking habits |
| | I have chosen to improve my wellbeing | Opportunity | Physical | Knowledge | Practical knowledge |
| | I have chosen to improve my wellbeing | | | Resources | Resources/material resources |
| | I have chosen to improve my wellbeing | Social | Social influences | Social support | Social support |
| | I have chosen to improve my wellbeing | | | Social pressure | Social pressure |
| | I have chosen to improve my wellbeing | Automatic | Emotion | Affect | Affect |
| | I have chosen to improve my wellbeing | | | Rewards | Rewards |
| | I have chosen to improve my wellbeing | Reflective | Beliefs about Capabilities | Self-efficacy | Self-efficacy |
| | I have chosen to improve my wellbeing | | | Normative beliefs | Normative beliefs |
| Plant | I know how to communicate with other plants | Capability | Psychological | Skills | Interpersonal skills |
| | I have chosen bad habits to improve my wellbeing | | | Behavioural Regulation | Breaking habits |
| | I have chosen to improve my wellbeing | Opportunity | Physical | Knowledge | Practical knowledge |
| | I have chosen to improve my wellbeing | | | Resources | Resources/material resources |
| | I have chosen to improve my wellbeing | Social | Social influences | Social support | Social support |
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| | I have chosen to improve my wellbeing | | | Normative beliefs | Normative beliefs |

Our tool will enable insights into One Health systems thinking in farmers, and others, informing the development of **behavioural support measures to foster transformation alliances** and **mobilise real-world action** towards food system transformation.



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