

# **DeCodeR Framework**

## **Coding of Demands and Resources Perceptions - adapted to disease outbreaks and epidemics -**

### **Codebook Manual**

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## 1. Coding Scheme

Coding scheme of Demands and Resources in higher-order (Level 1), second-order (Level 2), and third-order (Level 3) categories.

### **Demands**

#### *Danger*

- Health
- Psychological
- Physical
- Social
- Economical
- Ecological
- Vulnerability

#### *Effort*

- Metabolic
- Behavioural
- Psychological
- Financial

#### *Uncertainty*

- Situational
- Response

### **Resources**

#### *Knowledge, Abilities & Skills (KAS)*

- Tangibles
- Protective & Restorative Places
- Physical Capabilities
- Psychological Capabilities
- Behavioural Strategies

#### *Individual Dispositions*

- Traits & Response Tendencies
- Cognitions & Motives

#### *External Support*

- Emotional
- Informational
- Instrumental
- Spiritual
- Institutional

## 2. Demands

Demands are defined as conditions or added constraints posed by a given situation, and involve the perception or assessment of danger, uncertainty, and required effort inherent in the situation (Blascovich & Mendes, 2000, p. 63). These can be amplified when situations deviate from normal.

### 2.1. Danger

Coding units that involve the implicit/explicit perception of the situation's potential direct and/or indirect negative consequences to the environment, economy, security, and to the physical and psychological health and well-being of individuals or others in the community.

#### 2.1.1. Health (Danger)

Coding units representing the implicit/explicit perception of the situation's potential direct and/or indirect consequences to individuals/communities' physical health. Expressions generally associated with individual and/or collective perceptions about the danger of contracting a disease or aggravating an existing illness, either by exposure, contagion, or neglect/disrespect of rules and norms by others.

#### 2.1.2. Psychological (Danger)

Coding units representing the implicit/explicit perception of the situation's potential direct and/or indirect consequences to individuals/communities' psychological health. Expressions generally associated with individual and/or collective perceptions about the danger of losing one's mind or sanity, losing self-esteem, being unable to cope, experiencing negative affect, anxiety, stress, burnout, and depression.

#### 2.1.3. Physical (Danger)

Coding units representing the implicit/explicit perception of the situation's potential direct and/or indirect consequences to individuals/communities' physical integrity and existence. Expressions generally associated with individual and/or collective perceptions about the danger of permanent severe disabilities, severe injury, death, or human extinction.

#### 2.1.4. Social (Danger)

Coding units representing the implicit/explicit perception of the situation's potential direct and/or indirect consequences to individuals/communities' social context and structure. Expressions generally associated with individual and/or collective perceptions about the danger of social isolation, discrimination, racism, becoming intolerant to others, conflict and radicalisation of individuals and communities, extinction of social activities and lifestyles.

#### 2.1.5. Economical (Danger)

Coding units representing the implicit/explicit perception of the situation's potential direct and/or indirect consequences to individuals/communities' economic stability and viability. Expressions generally associated with individual and/or collective perceptions about the danger of poverty, unemployment, bankruptcy, or economic collapse.

#### 2.1.6. Ecological (Danger)

Coding units representing the implicit/explicit perception of the situation's potential direct and/or indirect consequences to individuals/communities' physical and natural environment. Expressions generally associated with individual and/or collective perceptions about the danger of increased pollution and contamination of air, water, streets, and natural places, extinction of animals, plants, habitats, and loss of ecosystems.

### 2.1.7. Vulnerability (Danger)

Coding units representing the implicit/explicit perception of vulnerable individuals/communities' due to the situation's potential direct and/or indirect consequences and the severity of such consequences over them. Expressions generally associated with individual and/or collective perceptions about the danger that the situation poses to particularly vulnerable persons or groups of persons.

## 2.2. Effort

Coding units that involve the implicit/explicit perception of the situation's potential direct and/or indirect induced burdens or overloads (e.g., metabolic, physical, emotional, cognitive, financial) posed to individuals/communities, with synergistic or cumulative effects over the 'normal' everyday burdens.

### 2.2.1. Physio-metabolic (Effort)

Coding units representing the implicit/explicit perception of the situation's potentially induced direct and/or indirect physiological and metabolic burdens to individuals/communities. Expressions generally associated with individual and/or collective perceptions about the effort markers associated with physiological and/or metabolic bodily functions (e.g., perspiration; sweating; dizziness; blood pressure fluctuations; dry eyes, mouth, and skin).

### 2.2.2. Behavioural (Effort)

Coding units representing the implicit/explicit perception of the situation's potentially induced direct and/or indirect physical and behavioural burdens to individuals/communities. Expressions generally associated with individual and/or collective perceptions about the effort in performing behaviours, and/or having to perform additional behaviours and physical tasks.

### 2.2.3. Psychological (Effort)

Coding units representing the implicit/explicit perception of the situation's potentially induced direct and/or indirect cognitive and emotional burdens to individuals/communities. Expressions generally associated with individual and/or collective perceptions about the effort in performing mental tasks, having to perform additional mental tasks, and/or having to control and deal with urges, nuisances, emotions, and feelings.

### 2.2.4. Financial (Effort)

Coding units representing the implicit/explicit perception of the situation's potentially induced direct and/or indirect financial and monetary burdens to individuals/communities. Expressions generally associated with individual and/or collective perceptions about the effort in having additional monetary expenditures and purchases.

## 2.3. Uncertainty

Coding units that involve the implicit/explicit perception of absent, ambiguous, inconsistent, incomplete, or conflicting information/knowledge about the situation and associated characteristics (e.g., novel and unfamiliar features), and/or about the applicable response from individuals/communities (e.g., what to do, where to get protection).

### 2.3.1. Situational (Uncertainty)

Coding units representing the implicit/explicit perception of conflicting information, lack of knowledge, and incomplete information concerning the situation and its associated characteristics by individuals/communities. Expressions generally associated with individual and/or collective perceptions of uncertain, insufficient, or conflicting information about the situation, what is happening, its causes and consequences, as well as about what is said and communicated about it.

### 2.3.2. Response (Uncertainty)

Coding units representing the implicit/explicit perception of conflicting information, lack of knowledge, and incomplete information concerning the applicable response(s) from individuals/communities. Expressions generally associated with individual and/or collective perceptions of uncertain, insufficient, or conflicting information about what to do, where to get protection, and meanings associated with technical recommendations.

## 3. Resources

Resources are defined as individual and social assets that are available and are effectively used by people to help them cope with the situation and its added constraints. These involve the perception of knowledge, abilities, skills, capabilities, strategies, tools, dispositions, and external support (Blascovich & Mendes, 2000, p. 63; Blascovich & Mendes, 2010, p. 207) that may provide coping opportunities.

### 3.1. Knowledge, Abilities & Skills (KAS)

Coding units that involve the implicit/explicit perception of individuals/communities' own or contextually available knowledge (e.g., knowledge about protective behaviours, places, tools, effective strategies, and available resources) and/or own skills, abilities, and capabilities (e.g., problem-solving skills; planning skills; behavioural ability; health and physical capabilities), useful to cope with the situation and its added constraints.

#### 3.1.1. Tangibles (KAS)

Coding units representing the implicit/explicit perception of individuals/communities' own or contextually available knowledge and use of safe/secure/protective tangible materials, tools, and equipment's (knowledge

about tangibles). Expressions generally associated with individual and/or collective perceptions about the use of available and potentially adequate protective equipment's, tools, as well as associated efficacy, instructions, and procedures of use (e.g., masks; visors; thermometers; air purifiers; special clothing; medicines; vaccines; tests; salary).

#### 3.1.2. Protective & Restorative Places (KAS)

Coding units representing the implicit/explicit perception of individuals/communities' own or contextually available knowledge and use of safe/secure/protective spaces. Expressions generally associated with individual and/or collective perceptions about the use of available and potentially adequate protective places (e.g., households, hospitals, clinics, gardens, beaches).

#### 3.1.3. Physical Capabilities (KAS)

Coding units representing the implicit/explicit perception of individuals/communities' own or contextually available knowledge and use of their own physical capabilities as a protective element. Expressions generally associated with individual and/or collective perceptions about the use of available and potentially adequate health, physical form, vitality, and physical resilience.

#### 3.1.4. Psychological Capabilities (KAS)

Coding units representing the implicit/explicit perception of individuals/communities' own or contextually available knowledge and use of protective cognitive and emotional regulation capabilities and strategies that facilitate protective response. Expressions generally associated with individual and/or collective perceptions about the use of available and potentially adequate cognitive functioning, reasoning capabilities, and emotional regulation strategies (e.g., planning and information processing capabilities; problem solving capabilities; cognitive restructuring; use of mental strategies and shortcuts; emotion recognition and regulation capabilities and strategies; numeracy skills; graph literacy; abstract thinking; context awareness; cognitions of efficacy).

### 3.1.5. Behavioural Strategies (KAS)

Coding units representing the implicit/explicit perception of individuals/communities' own or contextually available knowledge and use of protective behaviours and actions. Expressions generally associated with individual and/or collective perceptions about the use of available and potentially adequate behaviours and actions (e.g., avoidance and approach behaviours; hand washing procedures; physical distancing procedures; respiratory etiquette).

## 3.2. Individual Dispositions

Coding units that involve the implicit/explicit perception of individuals/communities' individual protection motivation traits (e.g., optimism), response tendencies (e.g., calmness), attitudes (e.g., ecological attitudes) and motives (e.g., affiliative), that facilitate protective responses.

### 3.2.1. Traits & Response Tendencies (Individual Dispositions)

Coding units representing the implicit/explicit perception of individuals/communities' individual protection enabling traits and response tendencies typically associated with personality characteristics. Expressions generally associated with individual and/or collective perceptions about available and potentially adequate automatisms connected to personality traits (e.g., tendency to be optimist) and response tendencies (e.g., tendency to stay calm) that facilitate and potentiate protective response.

### 3.2.2. Attitudes & Motives (Individual Dispositions)

Coding units representing the implicit/explicit perception of individuals/communities' individual protection enabling attitudes and motives. Expressions generally associated with individual and/or collective perceptions about available and potentially adequate automatisms connected to one's beliefs (e.g., karma), attitudes (e.g., humanistic response; concern with others),

motivations and goals (e.g., live longer; see children/grandchildren grow) that facilitate and potentiate protective response.

### 3.3. External Support

Coding units that involve the implicit/explicit perception of individuals/communities' contextually available support provided by material or immaterial others (e.g., emotional; informational; instrumental; institutional; spiritual) that facilitate and potentiate protective response.

#### 3.3.1. Emotional (External Support)

Coding units representing the implicit/explicit perception of individuals/communities' contextually available emotional support. Expressions generally associated with individual and/or collective perceptions of available emotional support, shouldering, comfort, and safety provided by relatives or others in their close community.

#### 3.3.2. Informational (External Support)

Coding units representing the implicit/explicit perception of individuals/communities' contextually available informational support. Expressions generally associated with individual and/or collective perceptions of available adequate information, information sources, and/or information providers effort in delivering useful and accurate information that enables protective decision and behaviour.

#### 3.3.3. Instrumental (External Support)

Coding units representing the implicit/explicit perception of individuals/communities' contextually available instrumental support. Expressions generally associated with individual and/or collective perceptions of available contextual indicators, commodities, and services (e.g., behavioural

aids; alcohol and mask dispensers; waste disposal bins, hand washing facilities) that have a potentially protective function.

#### 3.3.4. Spiritual (External Support)

Coding units representing the implicit/explicit perception of individuals/communities' contextually available spiritual support. Expressions generally associated with individual and/or collective perceptions of available support from religious, spiritual, divine, and/or natural entities, as well as available support from religious and spiritual institutions, leaders, and/or representatives in the community.

#### 3.3.5. Institutional (External Support)

Coding units representing the implicit/explicit perception of individuals/communities' contextually institutional support (non-religious/spiritual). Expressions generally associated with individual and/or collective perceptions of available support from government and politicians (e.g., laws), authorities (e.g., health authorities), institutions (e.g., hospitals, clinics, nursing homes, universities, pharmaceuticals), non-profit organizations and associations/communities (e.g., foodbank), as well as available support from institutional representatives/workers of those (e.g., nurses, medics, scientists, volunteers, disinfection teams, service providers).