Social representations of the undernourished child and health-seeking behaviour in Nepal: From othering to different types of otherness

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Abstract

Development programmes tackling severe acute malnutrition (SAM) in children tend to try to replace traditional beliefs with biomedical knowledge. However, stigmatization associated with undernutrition may be an additional impediment to seeking assistance. Drawing on the concepts of cognitive polyphasia and of othering, this study explored how different types of knowledge are used simultaneously in order to maintain a sense of otherness from the undernourished child in Nepal. A lexicometric analysis of answers to open-ended questions in a survey of villagers (N=376) conducted in two Nepalese districts indicated three patterns of representations of children with SAM. The analysis revealed that cognitive polyphasia can take various forms (*hybridization, selective prevalence* or *displacement*), which both shape and are shaped by different ways of establishing otherness from the undernourished child. Taken together, these results allow a better understanding of the meaning of villagers' health advice regarding undernutrition, and provide new avenues for implementing nutrition-related programmes. On a theoretical level, these results go beyond a simple statement of the plurality of knowledge, considering cognitive polyphasia as a relational outcome.

Keywords:

Social representations, othering, cognitive polyphasia, undernutrition

Ethics approval: This study has received approval from the Nepal Health Research Council (Ref N 2735). All local research assistants completed training in human subjects' research and all respondents provided informed consent.

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Data availability statement: The data that support the findings of this study are available on request from the corresponding author, [Sabine Caillaud].

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Introduction

Severe acute malnutrition (SAM) in children under five years old is a major global health issue and one of the main causes of child mortality and morbidity (Pravana et al., 2017). In Nepal, 27% of children are underweight and 36% have stunted development, figures that are considered critical.[1] Despite some significant progress in developing programmes to tackle child undernutrition in Nepal, a gap in coverage still persists (Cunningham et al., 2017).

For about a decade, a community-based approach for the treatment of SAM has been implemented in Nepal by Action Against Hunger in collaboration with the Ministry of Health and Population in order to facilitate access to health services and to enhance knowledge transmission in the community. These programmes (Choudhury et al., 2014) tend to disseminate biomedical knowledge about undernutrition, often not considering or integrating traditional beliefs, which are widespread in Nepalese communities (Van Teijlingen et al., 2015). This state of affairs has been found wanting by multisector programme stakeholders in Nepal, who feel that local beliefs should be taken into account to develop more effective health-related communications (Gaihre et al., 2019). Indeed, lack of knowledge about undernutrition is often considered a major impediment to appropriate health behaviour (Puett & Guerrerro, 2015). Furthermore, worldwide, undernutrition in children is associated with feelings of shame in caregivers (Jaffré, 1996; Howard & Millard, 1997) and with stigmatization and othering by community members (Castillo-Carniglia et al., 2010), which also creates barriers to health-seeking behaviour (Bliss et al., 2016).

Yet few studies (and to our knowledge none in Nepal) have specifically focused on community members' representations of undernutrition and how this relates to health-seeking behaviour. This lack of literature may be explained, in part, by a dominant perception of community members as uneducated people with unworthy traditional beliefs that should be replaced by biomedical knowledge (Pigg, 1996). The rare studies that have explored traditional beliefs related to undernutrition (Jaffré, 1996; Mwangome et al., 2015) lack theoretical grounding. They describe and explain the content of traditional beliefs in a way that tends to reinforce the view that traditional and biomedical concepts are strongly opposed. For example, a study by Burtscher & Burza (2015) in India highlights the existence of traditional categories for explaining undernutrition that are different from medical categories. As a consequence, rather than bringing children to healthcare services, caretakers seek out traditional practices with healers that share the same sphere of beliefs. While these types of study have value in considering traditional beliefs as a highly structured system of representations, they may paradoxically contribute to creating a strict dichotomy of traditional beliefs vs medical knowledge. By disseminating the idea that traditional beliefs are a barrier to providing medical

[1] Nepal Demographic and Health Survey, 2016 (https://dhsprogram.com/pubs/pdf/FR336/FR336.pdf)

care, they may thus inadvertently reinforce the stigmatization of undernutrition in traditional communities, in turn preventing appropriate health-seeking behaviour.

Drawing on social representation theory, this study adopts a slightly different approach, considering that biomedical knowledge may coexist alongside rather than replace traditional beliefs, and that this coexistence could support a social function. Specifically, we argue that the coexistence (rather than opposition) of different types of knowledge can take various forms, each associated with a distinct way of othering the undernourished child and to specific health-seeking behaviour. On a practical level, by providing a deeper understanding of the social meanings of health-seeking behaviour regarding undernutrition, the results could help to improve developmental programmes.

A social representation approach to undernutrition

Cognitive polyphasia and its social dimension

Social representation theory (SRT) was initially developed by Moscovici (1961) in the aim of understanding how scientific knowledge is turned into common-sense knowledge. Forerunners of this approach were developed by Lévy-Bruhl and Vygotsky, who considered that scientific knowledge does not entirely replace pre-scientific thought, and that common-sense knowledge is a necessary mediator in its assimilation (Moscovici & Duveen, 2000). When people are faced with something new, they do not completely reset their existing stock of knowledge. On the contrary, they apply their existing concepts to the new phenomenon (Wagner & Hayes, 2005), resulting in cognitive polyphasia: i.e. social representations that rely on different types of knowledge at the same time. Thus, old ideas often coexist with new (Flick, 1998). Cognitive polyphasia "expresses precisely the plurality of representational fields, where differing, and at times conflicting, styles of thinking, meanings and practices coexist in the same individual, institution, group or community" (Renedo & Jovchelovitch, 2007, p. 782).

The concept long remained underdeveloped (Provencher, Arthi & Wagner, 2012) and, until recently, its social dimension has rarely been the focus of investigations (Kalampalikis & Haas, 2008; Arthi, 2012). Jovchelovitch & Priego-Hernandez (2015) opened a new avenue for the concept in arguing that different types of knowledge are rearranged into different forms (which they call *cognitive outcomes*) as a result of specific Self–Other encounters. These authors argue that if there is recognition of the knowledge of the Other and if interaction allows for the integration of contradictions, the different forms of knowledge are combined into a new representation, a type of cognitive polyphasia termed *hybridization*. We suggest qualifying the Other in this Self–Other encounter as an *Alter-ego*, i.e. an Alter similar to Ego (Moscovici, 1984). A second cognitive outcome described by Jovchelovitch & Priego-Hernandez (2015) is *displacement*, where the knowledge of the Other is denied and only one system of knowledge is used. In this situation, we suggest qualifying the Other as an *Alter-alter*, deeply different from the Self (Moscovici, 1984). Finally, the third and most widespread cognitive outcome is *selective prevalence*, which occurs when the knowledge of others is recognized, but different types of knowledge are used alternately (not simultaneously), depending on context. For example, in India, people may explain madness using medical knowledge when they are with so-called "modern" people, but turn to traditional beliefs with their family (Wagner et al., 2000). This form of cognitive polyphasia indicates that the Self can belong to different groups at the

same time. In this case, the Other is not an Alter per se, it may be an Alter or an Ego, depending on the context.

In this way, recent developments are renewing the way cognitive polyphasia is analysed: focusing on Ego–Alter interactions offers the opportunity to examine its social dimension.

From othering to different ways of representing otherness

It is precisely by integrating social processes in its analysis that makes SRT an exciting alternative to mainstream health psychology (Murray & Flick, 2002). Indeed, SRT has quite a long tradition of research in the field of health (see Herzlich, 1969; Flick, 2000), as it enables an understanding of how laypeople make meaning of health and illness in relation to others, rather than focusing only on how they wrongly process information (Joffe, 2002; Apostolidis & Dany, 2012). In several studies, SRT has identified the process of othering as central in social representations of disease (Eicher & Bangerter, 2015).

People make sense of the threat of disease by means of socially constructed beliefs whose function is to protect the in-group's identity by distinguishing it from the out-group (Gilles et al., 2001). Thus, social representations of a disease maintain a dichotomy between Self ('us') and Other (those at risk) – a process known as 'othering' (Joffe, 1995, 1996, 1999, Joffe & Haarhoff, 2002). In this process, people construct a representation of a characteristic defining the Other and link that representation to the cause of the disease (Eicher & Bangerter, 2015). For example, during the avian flu epidemic, people in Hong Kong constructed a representation of dirtiness associated with mainland China, concluding that the disease came from China and was caused by dirtiness (Joffe & Lee, 2004). The process of othering has also been evidenced in people's search to make sense of other issues, such as poverty (Chauhan & Foster, 2014). Significant to our study, the process of othering provides a better understanding of what first appears to be irrational health practices: for example, if people associate AIDS with the 'deviant' sexuality of Others, they have the feeling of being protected and believe that using condoms is not relevant to them (Joffe, 1996).

Stigma and shame are associated with SAM children worldwide (Bliss, et al., 2015; Howard & Millard, 1997), indicating that othering may be at play. Understanding this process may help to understand health-seeking behaviour regarding undernutrition. However, othering may include a range of Self–Other relationships. Recent developments in cognitive polyphasia allow a finer qualification of the Self–Other relationships involved in representations of undernutrition, helping to reveal how different forms of knowledge may (or may not) be combined and how this relates to various health-related choices.

Moscovici (2002) posited that two different forms of thinking can be used when representing otherness: stigmatic and symbolic thinking. "Both deal with difference; however, in the former, this difference is based on the principle of comparison and leans towards inferiority, whereas in the latter, the same difference is thought of in terms of recognition, thus without any connotation of hierarchical level" (Kalampalikis, 2020, p. 110). In stigmatic thinking, the *other* is represented as an alternative human (or non-human) with whom contact is avoided, reflecting a deep otherness that can be qualified as an *Alter-alter* (Moscovici, 1989). In contrast, in symbolic thinking, the *other* is represented in terms of a complement to 'self': it is still *other*, different per se, but its existence is tolerated. This is the *Alter-ego*. Each type of thinking reflects different types of causalities: stigmatic thinking explains the cause of a

situation by essence (e.g. from birth, inherited, etc.), whereas symbolic thinking explains the cause functionally (e.g. a child has become malnourished because of social living conditions).

We put forward that this theoretical distinction (stigmatic or symbolic thinking) offers the possibility for a deeper understanding of the processes involved in representing undernutrition by considering the different types of othering that can occur. More specifically, drawing on the typology of Jovchelovitch & Priego-Hernandez, we suggest that the different types of Self–Other relationships may be related to different forms of cognitive polyphasia:

- hybridization, as the outcome of an Ego-*Alter-ego* encounter, may be associated with the symbolic othering of the undernourished child
- displacement, as the outcome of an Ego-*Alter-alter* encounter, may be associated with the stigmatic othering of the undernourished child
- selective prevalence, occurring when the Self, at least in some contexts, identifies with the Other, does not result in othering.

By focusing on the specific Self–Other relationships associated with cognitive polyphasia, a more intricate understanding of health-seeking behaviour regarding undernutrition may be possible.

Methods

Population

The study was conducted from June to September 2018 with 376 community members (M_{age}=37.58, *SD*=13.117) in two Nepalese districts, Saptari and Nuwakot, where the NGO Action Against Hunger was operating from 2013 to 2015. These districts were selected as they present some disparities (e.g. socioeconomic context and migration status of men), but are quite similar concerning other relevant aspects such as women's and men's education, women's empowerment, infant and young child-feeding practices (Nepal Demographic and Health Survey, 2016). Moreover, the health programmes to combat undernutrition are similar in the two districts in terms of accessibility to services, initial training of health staff, and management by the Ministry of Health and Population. The prevalence of SAM is higher in Saptari (4.7%) than in Nuwakot (1.8%).

In each district, several Village Development Committees (6 in Saptari and 5 in Nuwakot) were sampled in order to maximize differences according to the prevalence rate of undernutrition, housing conditions, and level of health communications, as well as to take into account potential access restrictions during the field study (due to monsoons). The sample consisted of 214 mothers (M_{age}=30.18, *SD*=8.595), 89 fathers (M_{age}=41.25, *SD*=10.457), and 72 mothers-in-law (M_{age}=55.08, *SD*=7.481).[2] Of the participants, 45.9% had at least one child suffering from undernutrition (severe or moderate).

Data collection

The interviewers were Nepali psychosocial workers employed by Action Against Hunger and were trained in the questionnaire-based data collection method. After obtaining the

[2] Out of the 376 participants, the parental status of one person was unidentified. In Nepal, mothers-in-law play a central role regarding children's education.

participants' consent, they conducted the survey in the most common language (i.e. Nepali in Nuwakot and Maithili in Saptari) from June to September 2018.

At the beginning of the survey, a picture of a Nepali child with SAM was presented to participants. The use of an image allows better recognition of a child's health status without imposing a medical category (Mwangome et al., 2015). Participants were first asked to say everything that came to their mind prompted by this picture (Question 1). They were then asked for their explanations of the causes of the child's condition (Question 2). Next, to explore otherness associated with undernourished children, they were asked what they think other people from their community would say about the mother (Question 3) and about the family of the child (Question 4). The answers to these four open-ended questions were translated into English by native speakers. Lastly, we asked participants to describe the health advice they would give and what they would do if they saw a child like the one pictured in their community. Several types of socio-demographic data about participants were also collected (e.g. wealth status, caste, etc.).

Data analysis

The analysis was conducted in three steps.

First, the responses of interviewees were grouped together depending on the health advice provided. To do this, a content analysis based on an inductive model (Patton, 2002) was carried out, with the responses falling into three categories: (1) advising the child be taken to a healthcare provider, (2) advising the child be given better food or care without seeing a healthcare provider, or (3) other strategies (neither of the two previous strategies: e.g. providing support and help). Two researchers categorized the answers, and the inter-rater reliability was very high: 98%.

	Health advice suggested by interviewees *(N=371)*[1]		
	Go to a healthcare provider 110 (29.65%)	**Give better food/care 126 (33.96%)**	**Other 135 (36.39%)**
District			
Saptari *(N=186)*	74 (38.95)	23 (12.37)	85 (45.70)
Nuwakot *(N=190)*	36 (18.95)	103 (54.21)	50 (26.32)

Table 1: Frequency of health advice recommended by interviewees by district (376 people were surveyed, but only 371 responses to this question were given)

In a second step, a lexicometric analysis was conducted for each of the three subgroups in order to provide an understanding of the different health-seeking behaviours.[3] This analysis was based on Reinert's method (Reinert, 1999) using the software IRaMuTeQ (Ratinaud, 2014). This type of analysis has been used successfully in the framework of social representation theory (Flick, Foster & Caillaud, 2015). The software first segments the corpus into contextual units (e.g. segments of 10 words) and reduces all words to their root. Then it generates a data matrix with words in columns and contextual units in rows (indicating if a word is present or

[3] The frequency of each type of health advice showed huge differences between districts (Chi^2 (2, N=371) = 73.142, p<.001): advising the child should be given better food or care was much higher in Nuwakot, while the category 'Other' was higher in Saptari (Table 1).

absent in each unit). A top-down hierarchical cluster analysis can then be performed on this table, resulting in different clusters of words that are significantly associated to the same contextual units. In our case, this provided different lexical universes used by interviewees to describe the image of the undernourished child. Next, the software was used to calculate if certain variables were significantly associated with each cluster (Wagner & Kronberger, 2000). For example, one cluster might be significantly over-represented for participants from Saptari (compared to Nuwakot) or for mothers (compared to fathers and mothers-in-law), etc. The variables in this analysis were the questions, the presence (or not) of an undernourished child in the family, a wealth index of the family, the position in the family of each participant (father, mother, mother-in-law), the age of participants (4 categories), caste, level of education (3 levels) and whether or not they had already seen a child like the one in the picture.

We then interpreted the different clusters obtained to give each a meaning in relation to the other clusters (Flick et al., 2015). A similarity analysis was conducted on the word cluster specific to Question 1 (spontaneous reactions to the picture) for each of the subgroups. This allowed a further exploration of the discourse about the undernourished child and strengthened our interpretation (similarity analyses are depicted in Table 2).

In a third and final step, based on these top-down cluster analyses (see Figures 1, 2 and 3), we specifically looked for indicators of othering and of cognitive polyphasia:

Indicators of othering: Processes of othering were presumed if there was a clear division between the in-group and the out-group (e.g. if participants thought that the situation could not happen to someone from their community or their in-group). Some kinds of emotions associated with the child also revealed processes of othering: for example, disgust may be reported when one faces a situation perceived as immoral, showing that othering may be at play (Abitan & Krauth-Gruber, 2015). Two types of thinking associated with othering were then differentiated:

- stigmatic thinking: indicated by possible comparisons to animals (dehumanization), specific emotions such as disgust that indicate contact is avoided, and an explanation of causes of the situation by essence, such as stereotypes.
- symbolic thinking: indicated by taking into account situational causalities and potentially showing empathy or other-centred emotions for the child.

Indicators of cognitive polyphasia: Cognitive polyphasia was indicated when different types of knowing were present (Arthi, 2012). For example, if medical terms were associated in the same cluster with terms referring to black magic, we concluded that community members simultaneously used different types of knowledge. Three types of cognitive outcomes were differentiated:

- hybridization: indicated by the combination of different forms of knowledge (for example, by a causality link)
- selective prevalence: indicated by the separate use of different types of knowledge, i.e. multiple causalities that are exclusive of one another (for example, high prevalence of the term ‘or’).
- displacement: indicated by reference to only one type of knowledge.

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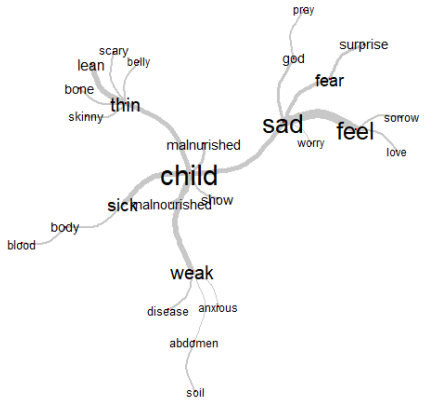
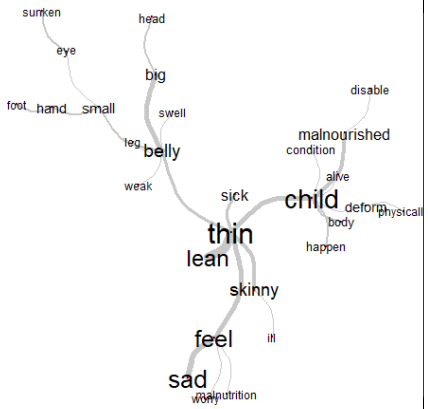
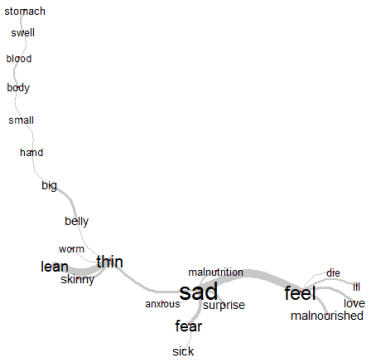
Representation of the child	**The ill child**	**The poor child**	**The unlucky child**
Health advice	Go to a healthcare provider	Give food or care	Other (e.g. provide help)
Description of the child (illustrated by the similarity analysis)	**The child as *Alter-ego*** 	**The child as *Alter-alter*** 	**The child as *one of us*** 
Othering	**Symbolic thinking**	**Stigmatic thinking**	**No othering**
- causal explanation	*- situational causes: familial conditions (cluster 2) and socio-economic way of life (clusters 3 and 4)*	*- stereotypical causes (cluster 1, 2 and 3)*	*- multiple causes (cluster 1) and different actors may be blamed for the situation (cluster 2 and 3)*
- reported emotions	*- self- and other-centred emotions*	*- self-centred emotions (e.g. disgust)*	*- self- and other-centred emotions*
Cognitive polyphasia	**Hybridization**	**Displacement**	**Selective prevalence**
- type of knowledge referred to	*- medical knowledge associated with sociological explanations (family relationships, financial living conditions)*	*- stereotypes about poor people* (careless, useless)	*- medical knowledge, traditional beliefs, socio-psychological explanations, financial conditions*
- relationship between types of knowledge	*- articulated as a causality (high prevalence of the word* due*)*	*- N/A*	*- not articulated (high prevalence of the word* or*)*

Table 2 Overview of results

Results

The analysis revealed that each of the three categories of health advice were associated with a specific pattern of othering and cognitive polyphasia, outlining three main representations of children with SAM: the ill, the poor and the unlucky (see Table 2). It should be noted that having a child who suffered from malnutrition had no effect on these results.

'The ill child': socioeconomic and family issues cause medical complications

In the subgroup of participants who advised that the child should go to a healthcare provider, compared to the other two subgroups, the spontaneous reactions were centred on the *child* (see Table 2), who was described as *sick*, *thin*, *weak* and *with no blood in his body*, and on the emotions this causes participants to *feel* (*sadness*, *surprise*, *sorrow*, *worry*, *fear*, *anxiety*, *love*), which make them *pray to god* (cluster 1 in Figure 1). The reply '*not seen before*' implies that this type of child is rather unfamiliar to these community members. This tends to indicate that othering is occurring, in a symbolic way, with the ill child being considered as an *Alter-ego*.

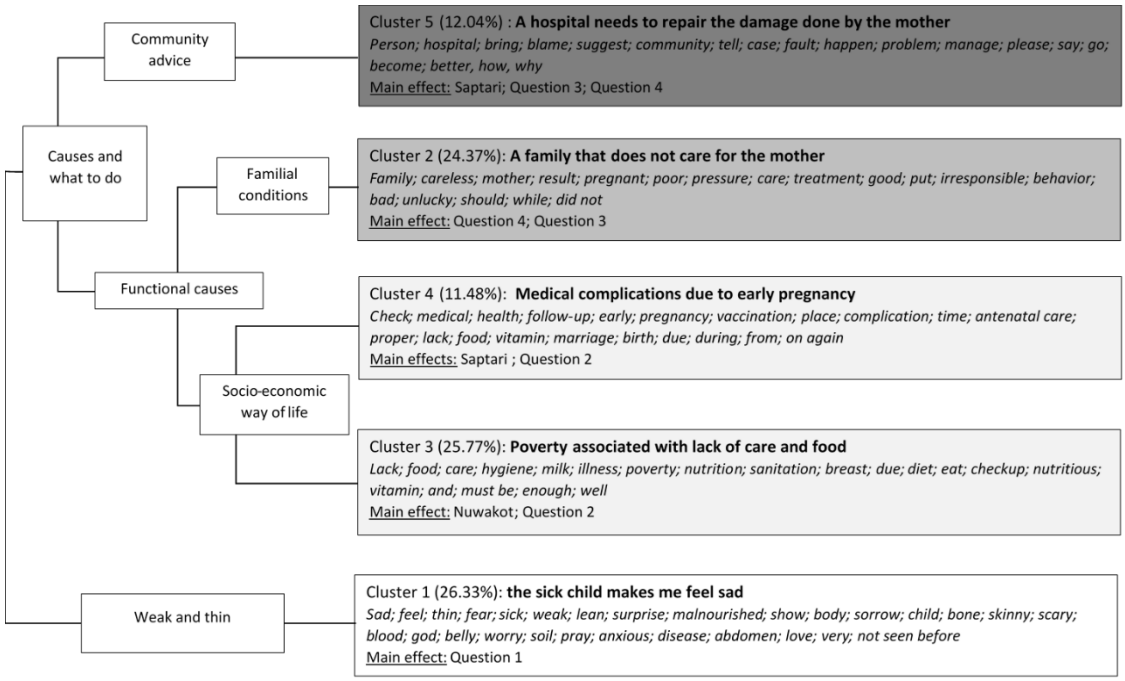


Figure 1 Top-down hierarchical analysis of answers from community members advising help should be sought from a healthcare provider

This was confirmed by the three clusters describing situational causes of malnutrition (see Figure 1): the child's sickness was explained through family conditions (cluster 2), and through socioeconomic conditions (cluster 3 and 4). More specifically, in cluster 2, typical text segments were: "the *family* put *pressure* on the *mother* while she was *pregnant* so this is the *result*". The family was described both as *irresponsible* and *unlucky*. We also found the idea that the family should care for the child if the mother does not, whatever the reason. Thus, rather than blaming the mother, community members blamed problematic family relationships. Concerning the socioeconomic explanations, cluster 4 shows a higher proportion of responses in Saptari and contains medical vocabulary (*check, medical, health, follow, vaccination, time, vitamin, complications, antenatal care*) associated with a description of social conditions (*due, early, marriage, follow-up during pregnancy*). Thus, medical complications were explained by specific social living conditions ("*some complications from the mother's abdomen because of*

early marriage and pregnancy"), indicating that both types of knowledge are used simultaneously and pointing to a situation of *hybridization*. In cluster 3, which shows a higher proportion of responses in Nuwakot, the most frequent (73 occurrences) and the most representative (chi² =148.86) word was *lack*. This referred to lack of nutritious food (*nutritious*, *diet*, *vitamin*, *milk*, *breast*, *food*) and to lack of care (*care*, *hygiene*, *check-up*) *due* to *poverty* and *resulting* in *illness*. Thus, the medical discourse about lack of nutritious food and care was associated with financial causes (poverty) in the hybridization mode.

A final cluster (cluster 5, figure 1) refers to advice given by the community and shows a higher proportion of responses in Saptari. A typical answer was "*people in the community would suggest bringing the child to the hospital*". This implies the existence of a normative discourse associated with appropriate health advice. However, *blame* and *fault* were also very frequent in this class, suggesting that shame is perceived as associated with undernutrition.

'The poor child': "poor people just don't care"

Concerning answers from the subgroup of participants who advised giving the child better food or care, the lexicometric analysis divided the data into four classes, equally distributed in both districts (Figure 2). First, spontaneous reactions to the picture (see Table 2) were organized around the term *thin*, associated with three lexical universes: physical characteristics (*belly*, *swell*, *big head*, *small hand*); the *deformed body* of the *malnourished child*, which may be *dead* or *alive* and is *disgusting*; and feelings reported by the interviewee (*feel*, *sad*, *worry*). In contrast to interviewees who advised going to a healthcare provider, here the rich description of the body of the child accentuated its deformity. Moreover, emotions were directly related to thinness (in contrast to the previous subgroup in which they were associated to the child). We also found terms that did not occur in the other subgroups: *looks like* a *frog*, the child is *disabled*. The high frequency of the term 'like' indicates the numerous comparisons: the child was compared to a *cat*, a *monkey*, a *spider*, a *balloon* (each comparison occurs once), resulting in a

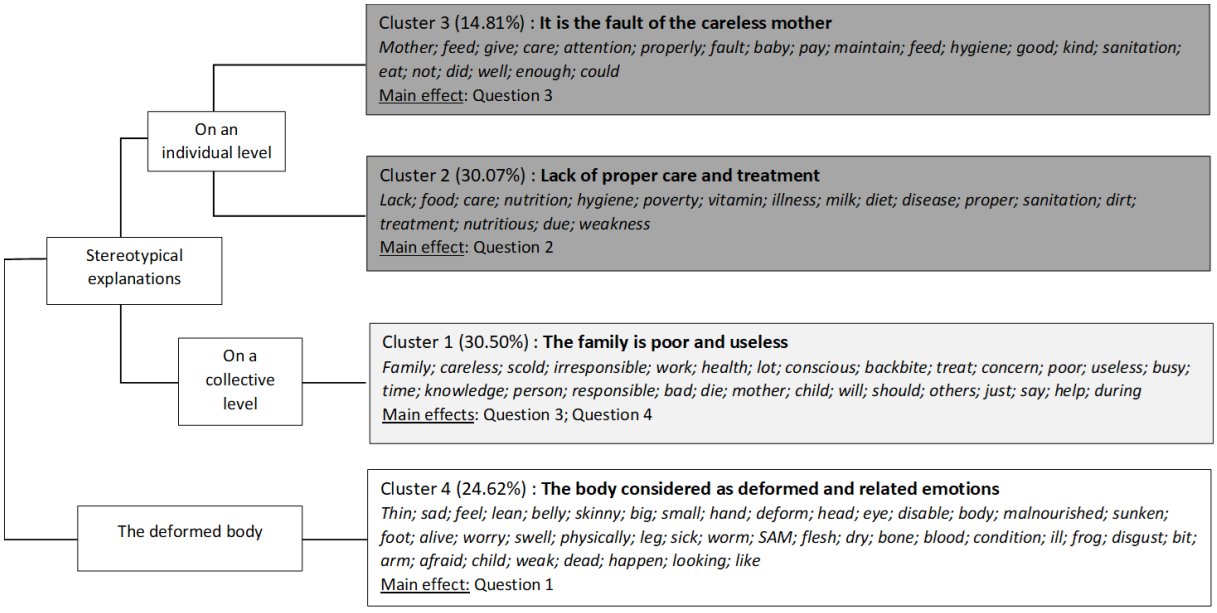


Figure 2 Top-down hierarchical analysis of answers from community members advising that the child should be given better food and care

depiction of the child as an *Alter-alter*. This seems to indicate stigmatic thinking, which was confirmed by the clusters explaining the cause of the child's situation (see Figure 2).

The other clusters shown in Figure 2 indicate stereotypical explanations of the child's situation, differentiated between collective explanations and individual explanations. Regarding collective explanations (cluster 1), interviewees described a *poor, irresponsible, useless* and *careless family who lacks knowledge* and/or a *mother not concerned* with the child's *health* although she *should be*. In contrast to interviewees who advised going to a healthcare provider, here poverty was associated with a stereotypical discourse about poor people. Regarding individual explanations, cluster 3 describes a *careless* mother, who "*does not pay attention to food and sanitation*" or *hygiene,* who *"did not care for the child properly, especially as regards food"* – the idea that it is all the *mother's fault* is frequent. Cluster 2 describes the "*lack of*" *food, proper care, hygiene* due to *poverty* and resulting in *illness and disease.* The top-down classification indicates that this cluster is close to the one describing a careless mother (see Figure 2), whereas in the previous subgroup the 'lack of' discourse was close to the discourse about medical complications due to early pregnancy. In the 'poor child' subgroup, we found only one medical term (*vitamin*) associated with this explanation. These community members appear to draw principally on stereotypical knowledge about poor people to explain the child's situation, thus indicating *displacement*. The result is a representation of the undernourished child as an *Alter-alter*, someone poor whose thinness is symptomatic of a careless and useless family and a mother that does not pay proper attention: i.e. an explanation by essence. In the logic of seeing undernutrition as the result of lack of care, advising that a child be given better food and care seems more evident than a healthcare provider being necessary.

'The unlucky child': fate is to blame

In the third subgroup, made up of interviewees who gave other types of advice (e.g. providing the family with support), the discourse also fell into four classes (Figure 3).

As the similarity analysis shows (see Table 2), spontaneous reactions to the picture were centred on the emotions interviewees felt when looking at the picture (*sadness, fear, surprise, anxiety*) and which were associated with a description of the thin body (*stomach, swell, small, hand, big, belly, skinny*). The thin body made them feel negative self-centred emotions (*sadness, surprise, fear*), as well as positive other-centred emotions (*love*). The words *malnutrition, ill* and *worms* indicate that community members spontaneously developed different explanations for the situation. The other clusters help to interpret this result.

Three clusters specify the possible cause of this situation as what could globally be referred to as a bad fate. Cluster 1 (with a higher proportion in Nuwakot) focuses on 'lack'. We find the words *lack* of *food, care, sanitation, hygiene*, but also explicit references to the medical sphere (*medical, check, iron, vitamin, vaccination, breast, pregnancy*), indicating that the child's situation may be explained by a lack of health monitoring that dates back to the *pregnancy*. However, in contrast to responses from interviewees in other subgroups, in this cluster there is also explicit reference to the *lack of love* from the mother, and to *black magic*. Thus, the potential causes are seen as quite numerous and related to different spheres of knowledge (medical, sociopsychological, magic), with the interviewees hesitant (high prevalence of *maybe*) about what may have caused this.

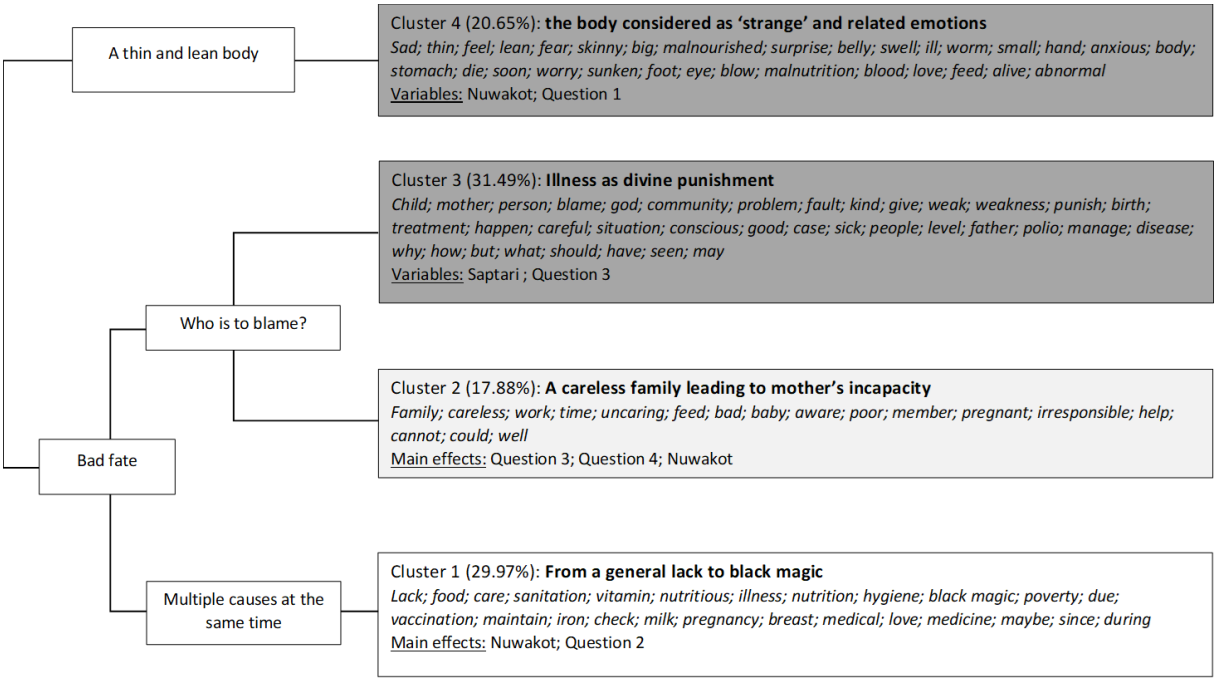


Figure 3 Top-down hierarchical analysis of answers from community members giving other advice

The next two clusters are similar as they reflect efforts by participants to find whom to blame for the child's situation. In both clusters, modal verbs (*could*, *may*) indicate that interviewees alternated between different possible explanations, a characteristic of *selective prevalence*.

A higher number of interviewees from Saptari are found in cluster 3, which features words referring both to different medical causes (*disease*, *polio*, *problem*, *weak*, *from birth*) and also to the religious sphere (*god has punished the mother*), in order to deal with the surprise and lack of understanding revealed by terms such as *why*, *how does this happen*. This cluster has the first significant presence of the term *father*, indicating his associated responsibility. It also contains the word *community*, with interviewees asking themselves *if something like this could happen in their community*. Overall, the illness is described as a divine punishment, a kind of tragic fate, which could therefore affect any child for different reasons.

Cluster 2 (with a higher proportion of responses in Nuwakot) describes the social and material conditions of the family: a *poor* and *irresponsible family*, *careless* about the *mother*, who has to *work* a lot (especially during *pregnancy*) and, a *weak mother* who *could not feed* the *baby*. Here, the family is viewed as possibly responsible for not taking care of the mother and thus not allowing the mother to take care of her baby: "*this is the family's lack of awareness because if a new baby is coming, the family has to think and take precautions for mother and child issues*".

In summary, while the interviewees in this subgroup did not advise going to a healthcare provider, they adopted a medical discourse juxtaposed with traditional beliefs in Saptari (divine punishment or black magic) or socio-familial conditions in Nuwakot. The diversity of perceived causes of SAM in children (lack of love, divine punishment and/or a range of socio-familial factors) clearly indicates *selective prevalence*. These interviewees were also concerned that this might happen in their community, revealing greater perceived vulnerability – the undernourished child may be one of us. For all these reasons, it seems reasonable to consider

that othering was not occurring here: the child was considered as unlucky and should be helped. Their advice was essentially to offer help to the family of such a child (by providing money, etc.).

Discussion

This study is a first attempt to provide data about community members' representations of undernutrition and how this links to health advice in two remote contexts in Nepal. By drawing on the concept of cognitive polyphasia, it contributes to breaking down the dichotomy between traditional beliefs and modern knowledge (see also Coudin, 2013). Its originality is to explore how different types of cognitive polyphasia are associated with different ways of representing the 'Other' (i.e. the undernourished child), and how this informs the meaning of health advice. Our findings revealed three patterns of social representations:

(1) For community members who advise going to a healthcare provider, the undernourished child is an *Alter-ego*, a child who is ill because of situational causes. *Hybridization* was also observed: community members combined medical knowledge either with sociological explanations in Saptari (early pregnancy due to family organization) or with financial explanations in Nuwakot (poverty). The process of othering involved maintaining undernutrition at a distance through *symbolic thinking*.

(2) For community members who advise that the child needs better food or care, othering is supported by *stigmatic thinking*. These interviewees resorted to stereotypes about 'poor people' who do not care for their children, making the undernourished child an *Alter-alter* (the 'poor child'). Medical knowledge was ignored. This indicates a typical case of *displacement*. In this context, the health advice given by these community members to provide better food or care becomes meaningful: it establishes undernutrition as a lack of care by negligent people and contributes to 'othering' undernutrition. This may seem a good strategy of protection from the threat of undernutrition in a context where it is less frequent (most interviewees in this subgroup were from Nuwakot).

(3) For community members who gave other types of advice (a large majority of this advice related to providing support for the family), the child could be considered as *one of us*. The child was represented as unlucky, explained by bad fate calling on different types of knowledge: medical, traditional beliefs, socio-familial factors, lack of love. Cognitive polyphasia taking the form of *selective prevalence* allowed undernutrition to be represented here as a consequence of a variety of factors. This might be a valuable strategy to rationalize the threat of undernutrition in a context where it is highly prevalent (most interviewees in this group were from Saptari, where undernutrition rates are higher). In this context, their advice can be interpreted as a way to make sure that community members will come to their aid if bad fate strikes them.

These results provide evidence that community members maintain the threat at a distance through different ways of representing a child with SAM: they may resort to stigmatic thinking (using stereotypes) in order to establish a deep otherness ('the poor child'), they may draw on different types of knowledge simultaneously resulting in othering through symbolic thinking ('the ill child'), or they may use cognitive polyphasia to consider undernutrition as a bad fate ('the unlucky child'). In this way, cognitive polyphasia is used as a strategy to keep the threat at a distance when othering is not present. This is in line with research that suggests that social representations fulfil an identity function by protecting the in-group (Joffe, 1995;

Jovchelovitch, 2007). However, our results indicate that othering associated with stigmatic thinking is only one way to do this.

Of course, the interview context should be taken into account, as it may have given rise to stigmatic answers. In front of an interviewer working for an NGO and thus categorized as being modern, interviewees may have adopted a stereotypical discourse in order to present themselves as modern (Pigg, 1996). Nevertheless, rather than representing bias, this would reinforce the idea that stigmatization of undernutrition is at play and is used to protect one's identity. Importantly, our results indicate that cultural differences exist between the districts in their representations of undernutrition (differences in health advice and the different types of knowledge called upon in each district for two subgroups). These cultural differences were not the focus of this study, however, it should be kept in mind that people rely on different types of knowledge depending not only on the Self–Other relationships of the immediate situation, but on the cultural meanings that circulate more globally (Castro, 2015).

Conclusion

On a theoretical level, these results open new avenues for investigating the plurality of otherness at play in the representation of health issues by drawing on the distinction between stigmatic and symbolic thinking (Moscovici, 2002, see also Kalampalikis, 2020). The study also contributes to recent developments around the concept of cognitive polyphasia by exploring its social dimensions through the process of othering. Its originality is to go beyond the simple statement of the plurality of knowledge (Arthi, 2012) to look at how different types of cognitive polyphasia (*hybridization, displacement* or *selective prevalence*) are used by social actors to shape various types of otherness. By considering how Self–Other relationships are associated with different types of cognitive polyphasia, the study supports the main idea that cognitive polyphasia is an expression of the agency of people (Mouro & Castro, 2012, Batel, 2012). In our case, community members rely on different types of knowledge in order to protect themselves from the threat undernutrition may represent (to their identity, or to their own children), and by doing this they establish a specific Self–Other relationship with the undernourished child. This in turn may shape the types of knowledge they use and how they are combined (or not). The term *relational outcomes* (Caillaud, Haas & Castro, 2020) thus seems more appropriate than the term *cognitive outcomes*: it emphasizes the idea that these different forms of cognitive polyphasia both shape and are shaped by specific Self–Other interactions.

On a practical level, our results reveal some important points to consider when implementing or adapting programmes targeting community members in Nepal (Gaihre et al., 2019). First, they highlight that different processes of othering are at play regarding undernutrition, potentially leading to blaming the mother and the family for their lack of care or considering them unable to provide care because of poverty. The same discourse was found in community members with or without a child suffering from undernutrition (no significant differences in the analysis), indicating that the former may feel shame or guilt for their child – both important barriers in accessing health services (Bliss et al., 2016). This shows the importance of tackling the stigmatization of undernutrition in both families of undernourished children and the wider community. Yet programme coordinators should keep in mind that disseminating biomedical knowledge is not necessarily an effective way to do this. Community members may use this strategically to maintain threat at a distance by combining it with other types of knowledge associated with symbolic othering, thus reinforcing stigmatization.

Moreover, medical knowledge does not guarantee relevant health advice (when selective prevalence was observed, interviewees referred to medical knowledge without advising going to a healthcare provider). Finally, of the standard strategies to reduce prejudice (Paluck & Green, 2009), intergroup contact should be considered cautiously: in Sapatari, where SAM is more frequent and contact with undernourished children more common, interviewees showed a tendency to refer to multiple causes and to individualize the child's situation. However, while this may be a good way to tackle stigmatization, it was found to be less associated with relevant health advice. Thus, programme coordinators should always adapt their strategies to the specific local context.

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