# Narratives of nutrition: Alternative explanations for international nutrition practice

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#### **Abstract**

International public health nutrition is an arm of international development that has recently gained visibility and traction. With growing numbers of actors involved, there are however multiple potential perspectives on what nutrition action means in practice. This empirical study aims to provide fresh insight and a stimulus to debate around research and practice in the world of international nutrition, exploring through literature review, interviews and political and social theory the questions: How has the discourse underpinning nutrition policy and practice evolved internationally over time; and how have changing narratives and interests affected the global agenda for nutrition?

A dominant discourse in international nutrition currently is of the need for multi-sectoral action for the reduction of child stunting. The paper traces the evolution of this narrative through analysis of conflict among paradigms and among the actors that propagate them; the role of discursive strategies and framings as 'strategically ambiguous' to bring diverse actors together, though with sometimes contradictory actions in pursuit of a common stated goal; and the 'rendering technical' of complex, often politically-charged processes in order to more simply frame a response.

There are practical implications of these divergent philosophies, ambiguous language, and contingent knowledge for the nutrition community and its actions to reduce the global burden of malnutrition. Problematizing nutrition issues in certain ways has implications for what is done to address them, so policy makers and practitioners should reflect on the limits that the ascendant paradigms, popular framings, and dominant forms of knowledge might impose on what may be done in their name.

**Keywords**: *Nutrition*; *development*; *discourse*; *history*; *practice* 

#### **Key messages:**

- With growing numbers of actors involved in international nutrition, there are multiple potential
  perspectives on what nutrition action means in practice, with a dominant discourse revolving
  around multi-sectoral action for reduction of child stunting.
- Conflict among development nutrition paradigms and among the actors that propagate them has been a feature of the history of the sector.
- Discursive strategies and framings as 'strategically ambiguous' have brought together diverse actors, though with sometimes contradictory actions in pursuit of a common stated goal.
- The 'rendering technical' of complex, often politically-charged processes in order to more simply frame a response has side-lined political and ethical action for nutrition.
- Problematizing nutrition issues in certain ways has implications for what is done to address them, so policy makers and practitioners should reflect on the limits that the ascendant paradigms, popular framings, and dominant forms of knowledge might impose on what may be done in their name.

#### **Introduction: Locating nutrition**

The year 2008 is acknowledged as something of a watershed moment for international nutrition. Two years previously, the World Bank had published a comprehensive report on why and how nutrition should be brought to the fore of development after many years in the backwaters (World Bank, 2006). It cited the alarming scope of malnutrition problems, the failure of markets to address the issue, and strong development returns on investment as key reasons to reposition nutrition as central to development. One year later, a report from the Institute of Development Studies in the United Kingdom found that two key donors – the UK's Department for International Development (DFID) and the European Commission – were not bringing their full potential weight to bear in support of international nutrition, with no identifiable nutrition strategy, low levels of funding, no internal nutrition champion and no measure of the impact of their work on nutrition (Sumner, Lindstrom, & Haddad, 2007). That same year, researchers, many of whom had been working on nutrition issues over long and illustrious careers, recognised that a critical mass of understanding and experience had been accumulated and now needed to be marshalled if the community was to move forward in a coherent manner, with the aim of reducing the burden of malnutrition in some of the world's poorest countries. Leveraging existing relationships with the Bill and Melinda Gates Foundation, the resulting publications, the 2008 Lancet series on maternal and child undernutrition, presented a summary of current scientific knowledge on the causes and consequences of, and interventions for, maternal and child malnutrition (Black et al., 2008; Bryce, Coitinho, Darnton-Hill, Pelletier, & Pinstrup Andersen, 2008; Morris, Cogill, Uauy, & Group, 2008). They also reiterated some key organising concepts around which they suggested the nutrition community should coalesce: the importance of reaching children in the first thousand days between conception and age two for optimal impact; the utility of measuring stunted growth in children as an indicator of chronic malnutrition and of human development more broadly; and the consequences of inaction on stunting for national economic and social development. Later in 2008, the Copenhagen Consensus group published its second listing of prioritized development investments based on cost-benefit analyses; five malnutrition interventions featured in the top ten of thirty efficacious development actions, giving further impetus to the field (Copenhagen Consensus Center, 2008). Coming in the same year as the global financial and food price crises and a focus on food security at the 2008 G8 meeting, the role of these normative publications in advocacy efforts by academics and practitioners helped the issue of nutrition to ride the wave of political interest in food security more broadly, to secure its current place near the top of global development agendas. To date, the Scaling Up Nutrition (SUN) Movement has encouraged 60 countries and multiple businesses, NGOs and financial donors to sign up to its vision of malnutrition reduction, and the Global Nutrition Report tracked a four-fold rise in overseas development aid spending on nutrition between 2007 and 2013 (Development Initiatives, 2018).

On its path to this point, the history of international public health nutrition is bound up with the history of international development, and in modern times nutrition is an arm of international development that is gaining in visibility and traction. The nutrition community working on the international nutrition development agenda has been described as an 'international nutrition system' (Morris et al., 2008), a loose grouping of actors and organizations interlinked financially, intellectually, and personally, working broadly to reduce malnutrition globally. The international nutrition system is made up of agencies and programs of the United Nations (UN); donor organizations such as development banks, bilateral aid agencies, and philanthropic foundations; international non-governmental organisations (INGOs); major universities and research centres; academic journals and the non-specialist media; and multinational commercial food and nutrition companies. National governments, academics and development actors also feed into this system. With all these different actors involved over a complex history in international development, there are multiple potential perspectives on what nutrition action means in practice, which are explored in this paper.

### Approach: Disentangling nutrition's narratives

This empirical study aims to provide fresh insight and a stimulus to debate around research and practice in the world of international nutrition. The research takes an exclusively international focus, aiming to bring insights from the critical anthropology of development literature to bear on a

historical and contemporary reading of international nutrition ideas and practice. Building on previous anthropology of development work (Escobar, 1995), the study analyses the evolution of ideas that have brought the international nutrition system to its current approach to malnutrition reduction, and the implications of this agenda for international action. It explores the questions: *How has discourse underpinning international nutrition policy and practice evolved over time; and how have changing narratives and interests affected the global agenda for nutrition?* 

This research used the concept of discourse in the analysis of international nutrition as a branch of international development, and of the historical progression of international nutrition ideas. The work of Foucault (Foucault, 1966, 1975) defines discourse as social construction through language, that allows for the production of knowledge and truth through constructed framings of the world (Hewitt, 2009). The production of discourses and normative framings can structure the power to control what is said and how issues are understood, and the study of discourses can therefore reveal power relations in society in order to better understand why history progresses as it does (Considine, 2005). The concept of discourse as underlying social action can equally be applied to the field of development and the process of policymaking (Mosse, 2011).

Two avenues of empirical data were explored for this analysis: Published literature providing histories and commentaries of international nutrition as a field of practice over time; and interviews with longstanding international nutrition professionals. The paper digs deeper into a published review of the historical literature providing summaries of periods of international nutrition thinking and practice, drawing together what has been written on different eras to date (Gillespie & Harris, 2016). At the international level, key informant interviews were undertaken with ten long-standing international nutrition experts in academia and operational work. In addition, two published interviews with key figures in international nutrition were included as transcripts (Levinson, 2013; Steffen, 2016). The histories and insights gained from the nutrition literature and interviews spoke largely to the ideas of narratives (as different accounts framing the understanding of nutrition), knowledge (particularly the role of scientific evidence in framing nutrition action), and conflict (differing views on what constitutes valid action on nutrition). These ideas, expounded by

international interview respondents, were interpreted in this research in the context of a review of key concepts from the anthropology of development literature, applied to international nutrition as a distinct field of development practice. The final analysis weaves the theoretical and empirical data together to trace a history of nutrition as a discipline of study and field of practice, and to explain through the theory of discourse why this history progressed as it did to create the international nutrition system as it is today. These findings are used in a discussion of implications for current and future practice in nutrition for international development.

# Narratives of nutrition: evolving international discourse

#### **Nutrition history (as written by the victors)**

Sometimes it can be helpful to look back, in order to move forward in more useful directions. Most scientific disciplines, when looking back over their history, can identify distinct eras of thinking which dominated for a time then changed as understanding grew, contexts changed, and theories were refined or abandoned. These eras in their grandest sense have been termed 'paradigms' by Thomas Kuhn (1964), but in less sweeping ways can be a set of ideas that define the dominant assumptions and norms of a discipline at a certain time, including what may legitimately be observed, what kinds of questions can be asked, how questions are structured, and how results should be interpreted. Scientific communities hold paradigms as shared mental models of how the world works, exerting a deep influence to think of issues in one way rather than another, and rendering certain issues to become especially salient while others become invisible (Hassel, 2014, pp. 3). Understanding the historic norms, paradigms and shifts of emphasis that have shaped ideas and practice in the international nutrition system can shed light on how the discipline has been encouraged to think, and so on current working practices.

Modern international nutrition as a discipline is a coming together of strands of health sciences with international development, and is concerned predominantly with the reduction of malnutrition – mostly undernutrition in children and their mothers in low- and middle-income

countries – either through its treatment or prevention. In the written accounts reviewed in Figure 1 (Gillespie & Harris, 2016), multiple narratives can be seen to have shaped international nutrition thinking over time; these relate to the nature of the problem of malnutrition – its manifestations, causes and consequences – as well as to the value of different approaches to addressing it. Though there are differences in interpretation of the past, certain eras are evident across many of the histories: Nutrition between the two World Wars was a preoccupation in Britain in particular, with the work of John Boyd-Orr and others shedding light on the poverty dimensions of malnutrition in Europe (Boyd-Orr, 1936), and later World War II necessitating rationing and a focus on acquiring sufficient nutrients, so Britain also drove much nutrition research at this time. Post-war to the 1970s, a focus internationally on starvation, food quantity, and protein sufficiency in colonial and post-colonial countries is evident in several reviews of international nutrition; notable is a framing of malnutrition as hunger, along with deficiency in calories or proteins. An emphasis on micronutrients and infant feeding, aspects of nutrition focused on delivery of information or products, held sway for two decades in the 1980s and 1990s, subsequently termed the 'disciplinary isolation' of nutrition. And one of the most commonly identified themes in these historical accounts, that of a need for multiple sectors beyond health to become involved in reducing malnutrition, is evident at two different time points in the histories, described as 'multi-sectoral planning' in the 1970s, and revived as 'nutritionsensitive programming' in the 2000s. Thus, the proper role and focus of international nutrition research and practice, while interpreted differently by different observers, can be seen to have followed several broad paradigms (and shifts of emphasis within paradigms) over time, as the key problems and solutions came to be framed in different ways.

The way an issue is framed by different parties at different times is a powerful agenda-setting tool; in a practical field such as nutrition or public health, it will determine who gets involved in issues, and how solutions are decided on (Shiffman, 2007). Indeed, the written historical accounts briefly summarised above are only those that people chose to write, and that then made it past peer review and into publication; it is notable that all of these publications on the history of nutrition are written by practicing nutrition academics, rather than sociologists or political scientists reviewing the

1950 1960 1970 1980 1990 2000 2010 **EMERGENCE OF** FOOD NUTRITION SPECIFIC & **NUTRITION SCIENCE** SHORTAGE PLAN. ISOLATIONISM **SENSITIVE** PROTEIN NUTRITION ↑ NUTRITION ↑ NUTRITION PLANNING ISOLATIONISM PRIORITY MOMENTUM PROTEIN NUTRITION POLICY MICRONUTRIENT RIGHTS vs M/S DEFICIENCY PLAN INVESTMENT COMMUNITY **DEFICIENCIES AND UNDERNUTRITION;** OVERWEIGHT AND NCDs; DUAL BURDEN; FOOD SYSTEMS DIFTARY REOCMMENDATIONS TARGETED FEEDING PROTEIN AND RUTF / STARVATION CMAM MICRONUTRIENT LACTATIONAL PERFORMANCE: WEANING: IYCE / FORMULA MILK AND MATERNAL FOOD PROVISION BREASTFEEDING PROMOTION INTEGRATED PROJECTS: REHAR CENTRES: M/S PLANNING: MEDICAL PATHOLOGY: FOOD DISTRIBUTION BREASTEEDING: SCHOOL MILK POWDER: **ECODITECHNOLOGY** FEEDING; FOOD COUPONS **HOME ECONOMICS** 

Figure 1: Review of papers describing paradigms in nutrition, 1950-present

1: Herforth 2014: World Bank focus. 2: Nisbett et al 2014/Gillespie et al 2003: Nutrition policy. 3: Jonsson 2010: International nutrition.

Source: The author, based on reviewed literature. Also reproduced in Gillespie and Harris 2016.

Acronyms: M/S: Multisectoral; RUTF: Ready-to-use Therapeutic Foods; CMAM: Community-based Management of Malnutrition; IYCF: Infant and Young Child Feeding

field from outside. Issue framing is sometimes understood as a narrative to be propagated, explaining or describing an issue in ways that bring parties on board with an agenda. But there is also a deeper level to issue framing and dominant paradigms that can be understood as discourses in the Foucauldian sense, in that studying these can reveal power relationships in society as expressed through language and practices (Foucault, 1966; Grillo & Stirrat, 1997). It is these aspects of issue framing that are addressed below.

## Constant conflict: the role of philosophy

Despite the patterns that emerge from the review and analysis of written work on historic nutrition paradigms, it is clear from the cross-section of academic views above that there is no single nutrition paradigm at any one time: a protein discourse co-existed with debates around lactational performance; targeted feeding persisted during an era of multi-sectoral planning; and integrated

<sup>4:</sup> Kennedy et al 2011/Kennedy 2008: Research priorities and global policy. 5: Webb 2009/Golden 2002: Emergency nutrition.

<sup>6:</sup> Crowther et al 2009/Knaak 2006: Infant feeding. 7: Levinson and McLachlan 1999: Nutrition interventions

community programming was being attempted even while many international nutrition institutions focused on delivering single micronutrients. It is also clear that in the competition for dominant framing, periods between shifts have become shorter and more fragmented and overlapping as we move from the 1950s towards the present day, as more actors and ideas became involved in the issue. In the nutrition histories analysed here, there have always been multiple agendas – sometimes competing, sometimes mutually reinforcing – leading to different discourses around the issues to be addressed. Central to discourse then is negotiation and conflict, including between those in the same field (Hajer, 1995); a dominant or mainstream paradigm usually co-exists with one or more 'counterpoint paradigms', which may replace each other in a paradigm shift, either through external rupture (external forces cause a crisis in the discourse) or cumulative conflict (internal conflicts in the necessarily simplified discourse are no longer tenable) (Considine, 2005; Jonsson, 2010).

Key points of change between nutrition paradigms – often emerging from conflict – become evident from the papers and interviews here. A clear break with a protein-centric view in the 1970s came as the result of an overwhelming body of evidence against the 'protein hypothesis', gathered by scientists working outside of the dominant paradigm who had long been sceptical of protein's central role in malnutrition (Jonsson, 2010). A counterpoint paradigm then took over, born of a view that malnutrition was multi-causal and attention was therefore needed to many determinants of nutrition – and therefore coordinated work from many sectors – all at once. This multi-sectoral view of nutrition arrived on the back of a broader 'age of planning' in international development in the 1960s and 70s (Escobar, 1997), and in an era when 'integrated rural development' was becoming a major focus for development projects more generally (Ruttan, 1984). Within this paradigm, the World Bank added both a 'rural development' focus to its agriculture department, and a nutrition department to its population unit in 1973, explicitly bringing attention to the links between agricultural development and nutrition in its programs (Herforth & Hoberg, 2014). Multi-sectoral planning units were set up and supported in 26 countries, with a focus on planning the policies of multiple sectors to respond to nutrition (Herforth & Hoberg, 2014). This nutrition-centric multi-sectoral planning, assuming that nutrition should be a primary goal of many key sectors, did not however bring all the necessary

sectors on board according to one international respondent in this research: "Many population control advocates were resentful of suggestions that health extension staff spend time on nutrition ... Some agriculture planners complained that [nutritionists] were getting in the way... And educators insisted that they were too busy teaching to spend time on school health and nutrition". So the technocratic planning models largely failed as envisioned in most countries due to over-complexity of the process and lack of ownership by any particular ministry or bureaucracy (Herforth & Hoberg, 2014). Lessons were learned however on the need for proper engagement with sectors outside of health (Berg, 1987; Field, 1987; Herforth & Hoberg, 2014), and elements of a multi-sectoral approach have remained to this day, most notably in the UNICEF framework (1990) describing the determinants of malnutrition, with multi-sectoral action today enjoying a resurgence as 'nutrition-sensitive' action in different sectors (Ruel, Alderman, & Maternal and Child Nutrition Study Group, 2013). Due to the complexity of these actions in practice however, some have questioned "whether or how [multi-sectoral nutrition] can become effective or sustainable within a time frame that is acceptable to politicians and international donors" at all (D. Pelletier, Gervais, Hafeez-ur-Rehman, Sanou, & Tumwine, 2016, pp. 669).

Many nutritionists during the 1970s multi-sectoral planning era were disillusioned that the issue they held important was not prioritised by other sectors, and subsequently retreated into a long period of 'nutrition isolationism', described by one respondent as a petulant group reaction: "'Well the heck with you, if you don't want to participate with us, we'll do things that we [don't] need you [for]... We'll do things we can do alone'". Thus, a focus on micronutrient delivery and infant feeding came to the fore in the 1980s, as single-sector solutions that nutritionists were able to address unaided. It has been argued that this preference for a 'micronutrient turn' among nutrition practitioners then became a dominant paradigm precisely because it coincided with the rise of a global neoliberal age, with micronutrient products providing an easy marketing opportunity for food companies, and a set of micronutrient delivery programs evolving that meshed well with emerging forms of managerial governance (Kimura, 2013). Even during this time however, some continued to work on integrated

programs, including one of the most infamous multi-sectoral, community-led nutrition projects of recent decades1.

Playing into this nutrition isolationism was the prevalence – for several decades – of dominant narratives of what nutrition meant, outside of the nutrition sector. The focus of a particular section of development researchers and practitioners on the issue of insufficient food quantity produced by smaller, poorer farmers, led for several decades from the 1950s to the primacy of development approaches aiming to increase the quantity of calories available to rural households (Herforth & Hoberg, 2014). With malnutrition thus framed largely as hunger, and hunger framed as a productivity issue, to most working in development outside of the nutrition sector this was a food security issue to be addressed by improvements in agriculture. The Green Revolution was predicated on this view, and brought significant increases in yields of staple food grains, particularly in Asia and Latin America, based on improved seed breeding and modern agricultural techniques (Hazell, 2009). Hunger, and in particular famine, in many regions was significantly reduced, and for many the issue of nutrition was seen as solved by the 1970s (Herforth & Hoberg, 2014). This allowed development projects beyond the nutrition sector to largely ignore nutrition (and in fact also food security and agriculture, which were also seen as resolved and fell off development agendas between the 1980s and the turn of the century), with nutrition projects retreating deep into the health sector. There is still a substantial community internationally promoting a paradigm of food security through increased staple food production (seen as raising both calorie availability and incomes) as the solution to nutrition issues. This has however led to a sustained backlash from others in the nutrition community, who see health status and the quality of diets beyond simply calories as fundamental to improved nutrition, and these two narratives are in constant low-level conflict within and beyond the nutrition community (Béné et al., 2019).

The interplay of these ongoing conflicts between nutrition paradigms has fundamentally shaped the opportunities, constraints and effectiveness of international nutrition intervention over

<sup>&</sup>lt;sup>1</sup> The Iringa program in Tanzania, launched in 1985, was a leading example of an inter-sectoral, community driven program that was to have a major impact in nutrition thinking and action in years to come. In particular, it stimulated the development of the pioneering UNICEF conceptual framework and nutrition strategy in 1990 (Gillespie and Harris 2016).

time. In her history of nutrition science, Quinn (1994) demonstrates a back-and-forth conflict over a period of decades and even centuries between what we could call philosophies of nutrition: those who took a social view of hunger and poverty (for example a focus on the cost of an adequate diet in the 18th and 19th century; John Boyd-Orr's work on malnutrition and income, and hunger in the face of agricultural surplus in the 1930s; the 1943 United Nations Hot Springs Conference and the 'freedom from hunger' declaration; and the 1974 World Food Conference focus on social and economic aspects of nutrition), and those who took a technical view of nutrition (for instance a focus on the importance of nutrition education backed by advances in nutrient discovery in the early 20th century; food technology in producing protein-rich foods in the 1960s or micronutrient supplements in the 1980s; and UNICEF's GOBI strategy in the 1980s<sup>2</sup>). Broadly, this was recognized by a respondent working in the international nutrition field as a split in underlying philosophies between "technocrats, with medical solutions to existing problems; [and] structuralists, who want to address why the issue was there in the first place".

Stemming from this philosophical divergence, another key difference in the community in recent decades has been between 'emergency' nutritionists, predominantly focusing on the treatment of malnutrition where it has occurred in acute or recurring crises through various medical models; and 'development' nutritionists, focusing on prevention of malnutrition through attention to its social and physical determinants (Menon & Stoltzfus, 2012), mimicking the 'relief' and 'development' tracks in humanitarian action more broadly (Barnett, 2011). In the interviews undertaken for this study, the conflicts between these tribes were marked.

Thus, the international nutrition community is not monolithic but rather has been split down various philosophical lines: prevention vs cure, technical vs social, multi-sectoral vs isolationist.

Where nutrition practitioners fall on this spectrum varies by individual, and many of course see the benefits of multiple approaches. But given certain preferences and understandings of the issue, practitioners and researchers tend to fall into different epistemic communities, understood as "networks of professionals (possibly from different disciplines and backgrounds) with recognised

 $^{\rm 2}$  GOBI: growth monitoring, oral rehydration, breast-feeding, immunization

expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain" (Haas, 1992, pp.3). These epistemic communities apply their specialized knowledge and interpretations in providing information to decision-makers, offering an important input into policy decisions. The fact that the international nutrition community has been characterized as fragmented (Morris et al., 2008) therefore has implications for progressing a coherent agenda within the field of nutrition. It also presents political opportunities for policymakers and practitioners in cherry-picking options by aligning with different interpretations of knowledge provided by different epistemic communities with differing philosophies, according to their political interests or beliefs.

#### Strategic ambiguity: the role of language

Each of these epistemic and practitioner communities has its shorthand, words or phrases used to communicate particular concepts important to disciplinary practices. In development practice, these words are rife; using the right development 'buzzwords' can signal understanding and belonging, and in a practical sense can be the difference between attracting funding and losing out on a project proposal. These words however are often imbued with meaning which may be far removed from their original sense, and in some cases, meanings attributed to them may be so broad as to allow for multiple interpretations. Buzzwords therefore can also serve to obfuscate, to obscure or broaden definitions so much that all viewpoints can be included, and therefore all or no specific agendas be advanced; that "combine general agreement on the abstract notion that they represent with endless disagreement about what they might mean in practice" (Cornwall & Eade, 2010, pp.2). Where several possibly competing agendas exist in a field, discursive strategies such as the use of buzzwords can create a strategic ambiguity through which indistinct understandings of an issue and its solutions are maintained between different sets of actors (Hajer, 1995; Richey, 1999). In this way, multiple actors can be seen to be following their own divergent interests in projects undertaken, but in pursuit of the same stated goal, permitting friendly negotiation but enabling tactical elisions or multiple interpretations of concepts, and foreclosing leverage by one group or another as all sides can claim to be motivated by the same purpose (Fraser, 2007; Mosse, 2013). As McGee and Edwards (2016, pp.2)

note in applying the concept of strategic ambiguity to governance research: "conceptual ambiguity generates a false sense that we are all pulling together in one common, unproblematic endeavour".

This tactic therefore has positive and negative connotations, and is used, whether consciously or not, by different agencies signing up to reduce malnutrition. Throughout the review and interviews, it became clear that the concept of stunting – significantly short stature for a child's age – has overtaken underweight, wasting, micronutrient deficiencies, overweight and hunger as the dominant concept in international nutrition, with many respondents using the terms malnutrition and stunting interchangeably in informal conversation. In part, this focus is a rational function of the prevalence of stunting in the world compared to other major nutrition issues: stunting rates are higher than wasting and overweight rates in most low-income countries. But they are not always higher than some micronutrient deficiencies; stunting rates are declining in many countries whereas overweight and its attendant diseases are increasing; and stunting is not as immediately life-threatening as wasting. So why is stunting winning the buzzword war?

Stunting is a useful measure in that it speaks to overall human development; everything needs to have gone relatively well in a young child's life for her to have avoided stunting, and as one international respondent put it "the only way to measure success in terms of what your policy has done for the actual status of the people, the individuals, is to measure in terms of nutrition... that finally stunting is the only objective, pure measure of change that you can attribute as success, and the rest is in a way accessory". So measuring stunting as an outcome makes sense instrumentally – though it is a broad rather than specific indicator of change in wellbeing, and evidence for the utility of stunting as an indicator has recently been questioned (Frongillo, Leroy, & Lapping, 2019; Leroy & Frongillo, 2019).

But stunting is also a useful concept in another way: it is all-encompassing – as both an outcome of all of the food, health and care determinants of undernutrition, and a precursor or modifier to many key development challenges, from economic growth to education – and so speaks to the goals and interests of many development actors: "a great advantage of stunting or nutrition in general is its tremendous malleability or versatility with which it can be framed or constructed. All social and

policy issues are socially constructed by design or default ... but the multidimensional causality and consequences of stunting offers an unusual opportunity to align it with many other issues rather than compete with them in a zero-sum fashion" (D. Pelletier et al., 2013, pp.94).

This malleability is indeed an advantage politically, and the framing of stunting reduction as a catch-all metric for development progress has allowed nutrition to rise up development agendas (Leroy & Frongillo, 2019). But while the feeling of common endeavour is often genuine, and the strategic ambiguity permits multiple actors to be brought on board with nutrition as a multisectoral and multi-stakeholder issue, this sense of common purpose can mask conflicting interests and contradictory actions in practice. As noted by an international interview respondent: "I think there's something that needs to be clarified - what problem are we trying to solve here? And that has been fuzzy forever; it's somewhat deliberate, and it's caused a lot of confusion. We do tend to call child growth nutritional status, which has been a bit of fuzziness, which has been politically used to make sure nutrition doesn't fall off the agenda, basically".

Commitments to broad concepts – even nominally positive goals such as stunting reduction – can mask varied interests and agendas that may become adversarial in the course of action or implementation over time (Stefani & Humphries, 2013). The most obvious manifestation of this in international nutrition is the infant formula industry's use of rhetoric on the importance of breastmilk to undermine the practice of breastfeeding itself, marketing breast milk substitutes through positive comparisons to the properties of maternal milk (Koerber, 2013). Perhaps less cynically, but equally tactically, stunting can be used to frame a majority of development action that would anyway be undertaken by different agencies in their business-as-usual. The discourse may have changed, but the agendas have not, and the actions promoted by different groups in the name of stunting can be contradictory. If both breastfeeding advocates and infant formula companies (or permaculture practitioners and synthetic fertiliser manufacturers) can claim to be working towards its reduction by promoting opposing actions, the concept becomes less useful in framing the issue in practice.

For all of these reasons, focus on stunting has, to a large extent, crowded out action on other nutrition issues such as obesity and wasting, or on creating the positive environments for children to

thrive – just as a focus on the 1000 day window has crowded out action for other age groups. Work on other nutrition issues is undertaken, but it is stunting which dominates nutrition targets and funding in the big global and regional initiatives and national nutrition projects: By one imperfect metric, in 2016, funding for nutrition-specific interventions (largely health-sector based, including treatment of acute malnutrition) was around seven times lower than that for nutrition-sensitive work tagged as having a nutrition aim (Development Initiatives 2018, Table 5.1). The very fact that stunting is an outcome of and input into such a complex web of issues (while also being relatively simple to define and measure in itself) is what makes it so appealing in a global policy world where multiple ideas and interests must be accommodated, so this particular concept has been promoted by global actors trying to bring multiple agencies on board to act on nutrition. This plays out similarly in national contexts where numerous donors, INGOs and ministries can see their roles in defining solutions without much change in their original mandates.

While stunting might point to a severe dearth of wellbeing in a population, and its underlying determinants in a given context will need to be addressed, stunting is not agreed by all actors as the nutrition outcome of choice; as one international respondent put it: "I think the current obsession with stunting is appalling. We're talking about child growth and development, of which stunting is a biomarker amongst many, and to define the situation as reducing stunting seems to be like defining reducing children's illness by reducing fever". Thus, stunting has become a buzzword in international nutrition, used to bring multiple actors and multiple sectors on board. But it is precisely this 'all things to all people' property of the concept that both enables action on a common cause, and limits progress on that cause when participants are pulling in different directions.

#### Rendering technical: the role of knowledge

Related to the framing of issues is the way that knowledge is seen in the fields of development and nutrition. As an ultimately Western concept, development is bound up with Western scientific knowledge and how knowledge is presented; the work of academics and the accumulated canon of knowledge on different facets of development, as well as development itself, is therefore generally couched in terms of the developers' knowledge categories, often around economics,

technology and management (Edkins, 2000; Escobar, 1997; Hobart, 1993). Similarly, nutrition as a discipline stems from Western health and medicine, which in turn rest on classical theories from behavioural psychology, biomedical science, and public administration (Potvin, Gendron, Bilodeau, & Chabot, 2005), and it has been recognized that the generally technical training in biology and perhaps public health for most practitioners in this field means nutrition research and practice often struggle to bring in broader social science and political theory (Berg, 1993; Garrett & Natalicchio, 2011). The biomedical and international development disciplinary streams combine to become 'international nutrition'. Over time, international nutrition has become a more and more coherent field of study within nutrition, as the 2008 and later 2013 *Lancet* series of papers make clear – but this coherence has come at the cost of largely excluding research and practice that does not fit within dominant paradigms.

A disciplinary field is a social arena structured by specific rules and a common focus, and the creation of boundaries around a field defines what knowledge is inside the scientific domain and what is outside (Bourdieu, 1984; Gaventa, 2003; Hilgers & Mangez, 2014). Within the discipline of nutrition sciences, the professional culture is bounded by beliefs shared by leading nutrition scientists about appropriate topics and methods of a nutrition research program (Stefani & Humphries, 2013). As these authors note: "The concept of boundary making... adds to a more nuanced understanding of intervention by showing how the formation of groups, in this case nutrition science itself, builds in assumptions about what are legitimate domains of study and how these domains are being consciously reconfigured to open a path forward" (Stephani and Humphries, 2013 pp.538). In other words, practitioners will often recognise and reproduce the common opinions of a field as self-evident, crowding out even the acknowledgment of other possible ways of working (Bourdieu, 1984; Hilgers & Mangez, 2014). This is seen in nutrition in the dominant constituencies with the power to synthesise and interpret an entire field into key works which influence knowledge and practice across the discipline, such as the Lancet nutrition papers (Lancet, 2008, 2013), and subsequent dominant practices such as Nutrition for Growth or the 1000 Days and Scaling Up Nutrition movements, which propagate a narrow interpretation of what nutrition means (Lie, 2019). Within these paradigms, what

may legitimately be observed and how it may be interpreted is limited to easily measurable constructs such as height-for-age, and the core texts of the discipline exclude more complex works on the social and political determinants of malnutrition seen through non-positivist epistemological lenses.

While the sociology of science has long seen science as constructed knowledge resulting from competition and negotiation between different groups of scientists (Keeley & Scoones, 1999), explicit acknowledgement of this bounded thinking is rare within most scientific fields themselves. While the knowledge produced by many academic institutes may be sound science, it is only ever a piece of a larger puzzle, open to 'hidden subjectivities' in the form of background assumptions embedded within disciplines that become so ubiquitous as to be invisible, presenting the epistemological problem of under-determination, or "gaps between hypotheses and data when background hypotheses are not articulated but presupposed as universal givens" (Hassel, 2014). It has been said of the nutrition research world, for instance, that "the boundary between scientific and situated knowledge closely corresponds to the two branches within the field of nutrition: one focused on research, teaching, and training and the other focused on operations, programming, and planning ... The former branch has historically been considered science, whereas the latter has not", historically limiting the scope of what may be researched (Stefani & Humphries, 2013). These inherent biases, in this case inherited from the medical world, worked well in nutrition science when the focus was on a medical model of delivering single nutrients, but struggle with the more complex and political issues of multi-sectoral and multi-disciplinary responses to hunger and malnutrition currently called for (Hassel, 2014), though this divergence is starting to be addressed with recent research initiatives<sup>3</sup>.

Related to what is considered valid knowledge, there are also different schools of thought on development practice; ultimately the types of knowledge that are accepted in a field validate certain kinds of action, a phenomenon that has been termed 'rendering technical' (Li, 2007). In this way, complex social problems are characterized by expert practitioners as intelligible issues appropriate for certain technical solutions, often either not recognizing or dismissing as overly complex the social and

<sup>3</sup> See for example the Society for Implementation Science in Nutrition (SISN): <a href="http://www.implementnutrition.org/">http://www.implementnutrition.org/</a>

political context, or the historical and structural conditions that created the issues in the first place. Removing the context of an issue and representing it in neutral scientific language thus filters out – either consciously or unconsciously – the possibility of non-technical social or political actions in its resolution (Li, 2007). This has been documented in nutrition, through what Kimura (2013) calls 'charismatic nutrients in nutritionism', and in the translation of "issues of poverty, landlessness and hunger into problems of public health to be solved by technical interventions in social relations and hygiene" (Li, 2007, pp.10). As Edkins (2000, pp.1) puts it: "The incorporation of hunger into...the modern human sciences has...removed [it] from the realm of the ethical and political and brought [it] under the sway of experts and technologists of nutrition, food distribution, and development. Its position there, as an appropriate subject for expert knowledge, remains a political position, but one that can lay claim to a political neutrality because of the specific way that science is construed as 'truth'." Or Jarosz (2011, pp.130): "The problem of hunger [as] individualized and rendered an economic and technical problem... shifts responsibilities for addressing hunger increasingly to rural women, but rarely addresses core gender relations history and the food system".

This is not to say that nutrition practitioners are particularly cynical in their choice of research topics or program focus: as in any field, action is restricted by dominant issues, professional training paradigms, and available resources, and while agendas are contributed to by experts in the field, salient problems are defined by other actors and interests also. In order to be able to continue to research and act, the nutrition community has been consciously framing nutrition in terms of the dominant development discourses of the day in order to get an important issue onto the agenda and into funding cycles. But this framing in turn limits the ways that nutrition can be talked about in policy and practice circles, and therefore limits the things that are able to be done in response.

Rendering an issue technical eventually leads to designated experts being the only people accredited to talk about it with authority, even while those experiencing hunger and malnutrition may prefer different responses (Kimura, 2013).

Those promoting the prevailing paradigms in nutrition over time (with the possible exceptions of the community-led paradigm most popular in nutrition in the 1980s, and the ongoing breastfeeding

/ infant formula clashes) have generally chosen to avoid head-on conflicts with established power — whether government, private sector, or other elites — in favour of technical fixes. These rarely tackle comprehensively the root causes of inequality — the 'basic determinants' of inequity, marginalization and lack of political and social empowerment — rather they focus on distinct elements of nutrition that can be provided rather than negotiated. Despite its explicitly political and rights-based origin, the core guiding structure in nutrition, the UNICEF nutrition framework (1990), has come to explicitly separate the determinants of undernutrition into immediate and underlying issues, to be tackled through a range of technical programs; and basic and structural causes, with social and political interventions encompassing advocacy strategies, accountability initiatives, leadership programs and capacity investments (Bhutta et al., 2013; UNICEF, 1990) but which are currently framed more as managerial than radical (Harris & Nisbett, 2019).

Topics to be researched in the first place are therefore not chosen apolitically, with the priorities of funding bodies or business interacting with the views of experts (and, occasionally, sufferers or service users) over which issues are studied (Morris et al., 2008; Sridhar, 2012). Some nutrition academics have long noted a technical and economics bias in nutrition policy research, for instance (mirroring a neoliberal bias in much development research in general), at the expense of a social, political, or organizational focus, and have argued for more attention to power and the political in assessing action on nutrition (Heaver, 2005; D. L. Pelletier, 2001; P. e. Pinstrup-Andersen, 1993). But the call for more political nutrition work is still being made (Nisbett, Gillespie, Haddad, & Harris, 2014), and this is largely, if the responses in these interviews are representative, because many of those in the international nutrition community are not aware that our training and orientation predisposes us to a technical bias; the subjectivities are hidden even from ourselves.

#### **Conclusion**

This paper has combined insights from analysis of literature and interviews covering the history of international nutrition, in light of broader anthropology of development theory. These various sources are used to illustrate several key features of discourses which are useful to understand

in order to get a clearer sense of the historical and political landscape in which international nutrition issues are framed and paradigms formed. These include the concept of conflict among paradigms and among the actors that propagate them; the role of discursive strategies and framings as 'strategically ambiguous' to bring diverse actors together, though with sometimes contradictory actions in pursuit of a common stated goal; and the 'rendering technical' of complex, often politically-charged processes in order to more simply frame a response. Each of these plays out in the field of international nutrition, problematizing food and nutrition issues in certain ways, with implications for what is done to address them.

Internationally, several distinct narratives of nutrition can be seen to have emerged over time, with impacts on how international nutrition policy and practice are seen today. Contemporary paradigms are harder to define without the benefit of hindsight, but currently the framing of key aspects of international nutrition is consciously being shaped through these discursive strategies. Internationally, the World Bank report advocating 'repositioning nutrition' as central to development (2006); the first *Lancet* undernutrition series (2008); the 1000 days program of the US and Irish governments (2010); and the advent of the Scaling Up Nutrition (SUN) movement (2010) each came in quick succession. Each of these initiatives informed the others, and a fairly small group of international academics, donors and INGO managers worked across the different projects. This gathering, refining and streamlining of knowledge and practice around a single narrow concept led to a 'turn to stunting' as a key idea in international nutrition, propagated by a global epistemic community focused on a certain sub-set of issues in nutrition.

Framing revolves around child stunting as the primary outcome of interest, largely due to its purported effect on future health and economic productivity; the importance of both nutrition-specific (health sector-based) and nutrition-sensitive (including other sectors) and therefore often multi-sectoral actions in addressing these issues; and malnutrition as distinct from hunger. In order to bring these new understandings into nutrition policy debates, nutritionists have consciously distanced themselves from previously dominant issues, such as hunger, in favour of new framings of malnutrition, and therefore changed the responses required to fix the problem as framed. Large parts

of the international nutrition community – in research organisations, financial donor institutions, INGOs and the UN system – have created and accepted these narratives as central to their work; influential academic publications (financed by the same development donors) have publicised them widely; and networks such as SUN are encouraging countries to find ways to make them tangible in policies and programs.

Focus on the issue of child stunting is relatively new internationally, and has a technicalrational rationale, and also a discursive-political one. Stunting is also key to discursive strategies and framings as 'strategically ambiguous' to bring different interests on board; and the 'rendering technical' of complex political processes in order to more easily frame a response without touching on complex political issues. Early anthropology of development work determined that the production and circulation of discourses is an integral part of the exercise of power (Escobar, 1997), with dominant narratives propagating the ideas which manifest as policy. This power could be exercised for benign purposes (such as the eradication of malnutrition) but the process of advancing a discourse is still an exercise in placing one set of views over another. A major issue that has come of this time and again in international development and nutrition projects is that a lack of understanding of a social and political context into which a set of external ideas is inserted gives rise to project failures and unintended consequences. Ferguson (1994) goes as far as to assert that development projects commonly do not achieve their stated objectives because projects are based on constructions of contexts that are not grounded in reality but rather on the needs of those intervening; the consequence of development projects is therefore often an expansion of state power and global economic forces into the further reaches of poor countries, without achievement of stated development goals for those residing there. Going further, Mosse (2005) finds that development projects are upward-facing, designed and implemented to maintain an image of success for donors and national actors while adapting to circumstances on the ground to maintain this mirage. Given that international nutrition sits squarely within broader international development efforts, and given the central role of international development in the political life of most low-income countries, it follows that the concepts and narratives propagated by global epistemic communities are likely to have influenced how nutrition

policy and action play out nationally. These international narratives can clash with domestic framings or might find common ground with national political aims (Harris, 2019), but an understanding of the different framings and their history can help to improve common understanding and common practice in reducing malnutrition, which remains an important goal.

Scientists as an interest group often take a technical stance and focus on appealing to others to change their interests accordingly, rather than reorganizing power relations (Hopkins, 1993). International nutrition, made up as it is of predominantly scientifically educated individuals, is therefore not a particularly politically active field; while nutrition is largely affected by two sectors – health and agriculture – which tend to be very prominent politically, nutrition is in itself not threatening to global or national political aspirations precisely because it is a small technical field with generally politically weak actors (Nisbett et al., 2014; P. Pinstrup-Andersen, 1993). The creation of evidence and information is a necessary part of understanding what can be done to solve a problem (however defined), but the process of choosing what to research and how to research it – and even what is researchable – is therefore not as rational as we would like to think (Jonsson, 2010); the forms of knowledge and 'ways of knowing' accepted in development and nutrition practice are not neutral, but have implications for action. Evidence is created within the confines of discourse, and 'truth' conforms to the rules and norms of the discourse, in science as in other areas (Hewitt, 2009); this goes as far as the fundamental positivist/constructivist divide, with most work seen as admissible evidence in international nutrition being the former. What is important is not that nutrition researchers stop creating new knowledge of course, but that academics, policy makers and practitioners acknowledge its limitations, and reflect on the limits that the ascendant paradigms, popular framings, and dominant forms of knowledge might impose on what may be done in their name.

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