

Security Psychology: New Perspectives From the COVID-19 Pandemic

Veronica Hopner¹, Stuart Carr¹, Megan Young¹, Nick Nelson², Darrin Hodgetts¹

[1] Department of Psychology, Massey University, Auckland, New Zealand. [2] Centre for Defense and Security Studies, Massey University, Auckland, New Zealand.

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Corresponding Author: Veronica Hopner, School of Psychology, Massey University, Private Bag 102904, North Shore Mail Centre, Auckland 0745, New Zealand. E-mail: v.hopner@massey.ac.nz

Abstract

In 1994, the United Nations human security taxonomy signaled a major shift from security as preservation of the nation-state towards a broader and more recent ‘decagonal’ model of human security (entailing everyday needs for personal, health, food, cyber, community, economic, national, environmental, political and, most recently, global security). Building on those foundations, this paper proposes a psychological theory of human security. The latter we propose is a question of ‘systems fit’ between everyday needs and priorities to official responses during crises like the COVID-19 pandemic. During COVID-19 lockdowns in 2021, across Australia and New Zealand, we asked $N = 2,162$ Australasians whether they had each type of security, how important each type was to them, and what each of the 10 sub-types of security meant to them. On face value, a pandemic is a primary threat to national public health. In everyday life, however, all 10 dimensions of human security remained salient and interconnected.

Keywords

human security, New Zealand, Australia, United Nations, security psychology, sustainable livelihoods

The 1994 United Nations human security taxonomy signaled a shift from security as preservation of the nation-state to a people-centered focus (UNDP, 1994). This focus encompasses up to ten dimensions of human security (personal, health, food, cyber, community, economic, national, environmental, political, and global; Carr et al., 2021; Hodgetts et al., 2023). Different approaches to human security have caused considerable and unresolved debate around priority-setting and resource allocation. Typically, these debates occur at macro levels, where the gaze is top down (Bajpai, 2003; Gasper & Gómez, 2015; Haq, 1994; King & Murray, 2001; MacFarlane & Khong, 2006; Paris, 2001; Tadjbak & Chenoy, 2007). Yet at more micro levels, where the gaze would be bottom up, far less is known about the different dimensions of human security, particularly the psychology of these in everyday life.

Against that backdrop of debate and a lack of understanding at an everyday level, our study was situated amid a human security crisis, COVID-19, which has lessons and relevance for today. During lockdown, we gathered (a) quantitative data about which of the ten forms of human security that (i) people felt they had, versus (ii) ranked in importance of having; and (b) qualitative data about the meanings of each type of security. A combination of General Systems and Fit Theories then illuminates how human security can be understood from both a macro policy level and a psychological perspective, whose gaze is grounded in everyday life and is thus bottom-up. Gaps (misfits) between the two can then be closed by evidence-informed policy.



Historical Context

The 1994 United Nations Human Security Report introduced a broader understanding of human security, primarily made up of seven separate but interconnected dimensions: personal, health, food, community, economic, environmental and political security (UNDP, 1994). In response to technological and conceptual considerations, a further two dimensions were added in 2020: cyber, and national (Carr et al., 2021). In 2022, against the backdrop of the Covid-19 pandemic, global security was added as a tenth dimension (Hodgetts et al., 2023). Throughout this shift and reconceptualization, two divergent approaches to human security have persisted – ‘narrow’ (high politics) and ‘broad’ (low politics).

The ‘narrow’ approach has focused on securing freedom from fear, primarily from threats of violence, and emphasizes developments in humanitarian law and human rights legislation (Fukuda-Parr & Messineo, 2012). Proponents of this approach have been successful in bringing about treaties such as the 1997 Ottawa Convention, the Anti-Personnel Mine Ban Treaty, along with the 1998 Rome Statue, which established the International Criminal Court (ICC). Groups such as the Human Security Network¹ have further supported endeavors to control small arms, disrupt transnational crime, protect women and children from violence, address selected issues of climate change, and some poverty-related matters (Fukuda-Parr & Messineo, 2012).

Adopting the broader perspective are countries such as Japan, which established the United Nations Trust Fund for Human Security (UNTFHS), and organizations, such as the European Council and Barcelona Group, the Commission on Human Security, and the United Nations Development Program (UNDP). This approach is concerned with all the freedoms (from want, fear, and indignity), and extends to a focus on structural, societal and global determinants of human security, such as sustainable and equitable access to health and education, the distribution of wealth, and a stable climate (Fukuda-Parr & Messineo, 2012). In both a theoretical and practical sense, this bifurcation between narrow and broad has made the identification of appropriate responses to matters of security difficult (Paris, 2001).

Theoretical Refocus 1: Systems Thinking

Rather than understanding human security in terms of a broad or a narrow approach, it may be more useful to think of human security as an interdependent system. Following tenets of General Systems Theory (von Bertalanffy, 1968), all 10 forms of human security can be seen as an interconnected decagonal system that is best understood as a whole, but also in terms of its individual parts. To do this means that “recognizing systems involves breaking things down into their constituent parts, and also grouping parts into larger wholes,” in turn requiring both macro and more micro level perspectives (Cabrerá et al., 2015, p. 536).

Conceptualizing human security as a system means that we can consider both the security of the nation state and human individuals, in terms of what the problem or threat may be. There may no longer be a need to distinguish between broad or narrow approaches but rather in terms of the level of risk that each threat poses to people, and to global functioning. Applying General Systems Theory through Systems Thinking provides an integrative framework to understand and respond to complex interrelated threats, such as pandemics to the security of human beings.

An Empirical Crucible: COVID-19

We can see how the COVID-19 pandemic posed significant threats and how the ten dimensions of human security may have functioned at both individual and interdependent levels to create a system of human (in)security. *Health* security in particular was undermined by overburdened healthcare systems, personal protective equipment shortfalls, lack of capacity in hospitals, inefficiencies in testing, and unequal distribution of medical treatment in many countries (Albert et al., 2021). While there were positive impacts for *environmental* security in terms of reduced greenhouse gas emissions, less pollution through lockdowns and decreased travel, there was also increased biomedical waste, plastic pollution, and solid waste, due to the cessation of recycling efforts in many major cities (Hammad et al., 2023).

1) Human security Network was established in 1999 with thirteen original member countries: Austria, Canada, Chile, Costa Rica, Greece, Ireland, Jordan, Mali, the Netherlands, Norway, Switzerland, Slovenia, Thailand, and South Africa as an observer.

From an *economic* perspective, in the first quarter of 2020 the Gross Domestic Product (GDP) fell by 6% for France and China, 4% for the United States, and was forecast at -3% globally (Heisbourg, 2020). Economic stagnation and loss of economic activity was estimated at -31% in Japan, -18% in China, and at around -25% in the United States (Heisbourg, 2020). The impact on the US stock market was unprecedented, exceeding the impacts of the 1918 influenza epidemic and the global financial crisis of 2008 (Baker et al., 2020).

The World Bank estimated that COVID-19 was likely to be responsible for the increase of 49 million people facing extreme poverty, including *food* insecurity (Newman, 2022). People living in fragile and weakened economies are more likely to seek security elsewhere, increasing irregular migration and refugee movements on a *global* scale (Albert et al., 2021). Said migration can put pressure on the host country's local *community* housing and welfare systems, provide competition in job markets, and be seen as a threat to *personal*, cultural and national identity (Albert et al., 2021), providing fertile ground for populist leaders to promote ideas of isolationism and protectionism (Béland, 2020; Heisbourg, 2020), especially in times of fear and uncertainty. Shifts to *national* protectionism and isolation can be exploited not only by national *political* actors, but by other international players seeking to increase their power and reach, for example through *cyber* communication (Albert et al., 2021).

Faced with a pandemic, we can now see that all aspects of human security are impacted, and how the relationships between them form interdependencies where individuals, groups, and the nation state face existential challenges. What is often missing from academic literature, however, are everyday experiences. Gaps like this matter. For example, despite adequate levels of food, secure supply chains, and assurance that there was sufficient food, panic-buying still occurred. Central to Systems Thinking, Cabrera et al. (2015) argue, is the "vantage point or the looker and a view, that which is seen or looked at" (p. 537). That is, perspective-taking in any situation means different things to different people, suggesting possibilities for a "mismatch between reality and our perceptions of reality, highlighting that "human cognition is germane to the analysis of systems" (Cabrera et al., 2015, p. 537).

Human Cognition and Psychology

There is a rich tradition in psychology of studying human cognition, along with psychological and ontological security, from humanistic, social cognitive, evolutionary, psychoanalytical, and post-structuralist paradigms. Adler (1925) proposed that psychological security arose from a sense of belonging and personal significance, cultivated from secure connections to society, and meaningful contributions to the common good. Maslow (1942) envisioned psychological security first in terms of meeting fundamental physical needs (food, shelter etc.), then feeling safe from threats and harm, enjoying economic and health security, coupled with emotional security, through self-esteem, healthy relationships, and personal growth.

A social cognitive perspective suggests that psychological security is a "cognitive process based on the repertoire of personal beliefs that make up people's subjective view of reality" (Bar-Tal & Jacobson, 1998, p. 60). This process draws upon a general appraisal and coping model where security is conceived of as a mental evaluation of environmental dangers and threats, with security or insecurity resulting from an individual's beliefs in their ability to cope with different threats (Lazarus & Folkman, 1984). Threat appraisals also rely on heuristically based decision-making processes, which assess the trade-off between the probability and gravity of threat or risk against scale and size of costs, along with the likely success of any countermeasures (Schneider, 2008).

Appraisals of threat, and strivings for psychological security, can also be grounded in collective consciousness which may include histories of war and conflict, political regimes, sociocultural and/or religious trauma, natural disasters, terrorism, and so on (Dontsov & Perelygina, 2013). Consequently, psychological security becomes multilevel and connected to "... the challenges, hazards, threats and risks to national goals, social ideals and core values of the individual, family, organization, state and society" (Dontsov & Perelygina, 2013, p. 4). Psychological security, then, "is a condition of a person according to which he/she can satisfy basic needs for self-preservation and perception of being secure [psychologically] in society" (Dontsov et al., 2013, p. 99). To date, research has tended to overlook the meanings and priorities for human security, as defined by the person who is supposed to be protected by lawmakers, the state, and international bodies and arrangements. With this nexus in mind, we can now begin to theorize human security in an integrated manner.

Theoretical Refocus 2: Person-Environment Fit

Originally theorized for the older person whose environment can be designed to safeguard their wellbeing (Lawton, 1983), the concept has since been extended to work roles and safe working environments (Rauthmann, 2021). Straddling these are two main conceptual levels regarding ‘fit’: objective and subjective (Kristof, 1996).

The objective level encompasses societal structures (i.e. law, education, religion, media), political systems (i.e. democracy, fascism), and economic arrangements (i.e. capitalism, socialism). It is relatively macro, and top-down. The objective level is often identified and measured through indicators such as Rule of Law and Democracy Indices, Assessments of Religious Freedom, or the levels of Gross Domestic Product (GDP).

The subjective level is about the psychological evaluations of security. These are more micro, and bottom-up. Bar-Tal and Jacobson (1998) argue that we cannot view security simply in terms of the political, economic or social arrangements at the objective level, since “...security does not exist in separation from individuals’ perceptions. Individuals *perceive* external events and conditions, evaluate them, and subsequently form beliefs about the state of security” (p. 60, emphasis added).

Here is perhaps the most fitting level for us to begin to develop a psychological theory of human security which does not lose sight of macro-level structures. These are not only perceived but can also be compared (e.g., via policies) that either fit or do not fit with human security shortfalls, priorities, and meanings.

Research Focus

The present research explored which of the ten different dimensions of human security people felt they had during a pandemic, its importance, and what each dimension meant to people, in Australia and New Zealand.

Method

Sample

We chose New Zealand and Australia for a convenient starting point for this study. Both nation states are geo-located in the same region, share common origins within the British empire, institutional structures, language, and overlapping cultural affinities. Since 1983, both countries have also been partners in the Australasian common market agreement, CER (Closer Economic Relations).

There are differences also. While both countries are representative democracies and have a constitutional monarch, Australia has federal and state parliaments, whilst New Zealand has a national parliament. In addition, Australia has actively pursued a multicultural agenda, while New Zealand is a bicultural nation.

Two national samples of $n_1 = 1,096$ Australian residents and $n_2 = 1,066$ New Zealand residents took part in the study, conducted online in September 2021 (see Table 1). During the period of data collection, New Zealand’s largest city, Auckland, alongside Sydney and Melbourne in Australia, were in strict lockdown due to COVID-19. Both samples were recruited through the services of a professional research company, Qualtrics. Participants were paid by Qualtrics and remained anonymous. The research was approved by the Massey University Human Ethics Committee (Approval No. NOR 17/18).

The Australian sample, $n = 511/1096$ (47%) men and $n = 585$ (53%) women. Mean age was 29.4 years (Standard deviation = 17.99). A range of self-identified ethnicities were represented: Australian ($n = 638$, 58%), English ($n = 152$, 14%), Irish ($n = 16$, 1.5%), Scottish ($n = 19$, 1.8%), Italian ($n = 20$, 2%), German ($n = 15$, 1.4%), Chinese ($n = 34$, 3%), New Zealand ($n = 32$, 3%), and ‘other’ ($n = 170$, 15.5%). Two participants reported Aboriginal heritage. Occupational status spanned from unemployed ($n = 173$, 16%) and student ($n = 49$, 4.5%), to casually employed ($n = 67$, 6%), part-time ($n = 176$, 16%), full-time ($n = 403$, 37%), and retired ($n = 228$, 21%). In terms of geographical location, the sample resided rurally ($n = 138$, 13%), in suburban areas ($n = 764$, 70%), and in urban settings ($n = 192$, 17.5%).

The most recently available comparison for these figures was the national census, dating from 2021 (Australian Bureau of Statistics, 2022). At that time, in addition to a 51:49% women/men ratio, the national median age was 38 years

and an unemployment rate of 5%, i.e., older than our sample mean of 29 years. The Australian census does not ask directly about ethnicity, instead, it relies on information captured about citizenship, country of birth, language spoken at home, and ancestry. In 2021, the top five most commonly reported ancestries were English (33%), Australian (29.9%), Irish (9.5%), Scottish (8.5%) and Chinese (5.5%). These overlapped with our own sample but diverged over Chinese. Across Australia as a whole in 2021, 71% of the general population lived in urban areas, 15% in suburban areas, and 15% in rural areas, leaving our sample under-representing urban groups and over-representing suburban groups. Nationally, 7/12 million worked full-time (58%) and 4/12 million (33%) part-time, leaving our sample under-representing full-time and over-representing part-time work. Overall, these figures would suggest that we had an over-sampling of younger people, people self-reporting European ancestry, and (potentially) under-employed people.

The New Zealand sample, $n = 504/1066$ (47%) men and $n = 559$ (53%) women, and $n = 3$ (0.28%) ‘other.’ Mean age was 29.0 years (standard deviation = 17.94). A range of self-identified ethnicities were represented: New Zealand European ($n = 655$, 61%), Māori ($n = 147$, 14%), Pacific Islands ($n = 37$, 3.5%), Chinese ($n = 50$, 5%), Indian ($n = 47$, 4.5%), and ‘other’ ($n = 130$, 12%). Occupational status spanned from unemployed ($n = 133$) and student ($n = 68$), to casually employed ($n = 38$), part-time ($n = 176$), full-time ($n = 464$), and retired ($n = 186$). In terms of geographical location, the sample consisted of rural ($n = 153$, 14%), suburban ($n = 703$, 66%), and urban ($n = 210$, 20%) participants.

The recently available comparison for these figures was the 2018 national census, (Stats NZ, 2022), showing a 51:49% women/men ratio, national median age of 37.4 years, with 16.5% of the population identifying as Māori, 8% as Pacific Island, and overall unemployment rate of 4%. These figures suggest we had an over-sampling of younger people and unemployed, and an under-sampling of Māori and Pacific peoples. Hence, this sample was conservatively designated as national rather than nationally representative.

A summary of these demographic statistics, across both countries, is provided in Table 1.

Table 1

Sample Comparative Demographic Statistics

Demographic characteristic	Australia	New Zealand
Gender M/F ^a	47:53%	47:53%
Mean Age	29.4 years	29.0 years
Modal Ethnicity	Australian	NZ European
Full-time Employed	37%	44%
Rural/Urban/Suburban	12/18/70%	14/20/66%

^aThe sample included $n = 3$ individuals responding ‘other’ to gender, self-reporting (in text) as “non-binary”.

We computed both the securities that people felt they had in each country (see Table 2); and the rank order of importance of each type of security, captured by Mean Rank Order (MRO). (see Table 3). These statistics allowed us to triangulate quantitative divergences and convergences between countries and across demographic groups, with the qualitative analyses.

In our survey, we also included open-ended questions in which we asked participants to “Please write down the first things you think about when you see the types of ‘security’ mentioned here”, and “What does this type of security mean to you?” The ten types of security listed were taken at random from the following: personal security, health security, cyber security, food security, community security, economic security, national security, environmental security, political security, and global security. Participants could type as much or as little as they chose in a free-form box, against each of the ten securities. The question itself did not mention the pandemic and thus did not prime for pandemic-related concerns. We also asked participants to indicate (by drag and drop)² whether or not they felt they had each type of security, and to rank each type’s importance to them (allowing for tied ranks), from 1 (most important) to 10 (least important).

2) Online feature designed by Mr. Harvey Jones, School of Psychology, Massey University, New Zealand.

We employed a Content Analysis approach which fits within a “family of analytic approaches ranging from impressionistic, intuitive, interpretive analyses to systematic, strict textual analyses” (Hsieh & Shannon, 2005, p. 1277). Qualitative Content Analysis is widely used to sort large amounts of text (such as answers to open-ended survey questions) to identify common representations or patterns in the data. Through such identification, the goal is to “provide knowledge and understanding of the phenomenon under study” (Downe-Wamboldt, 1992, p. 314). This process of knowledge creation is always related to the context or environment (Krippendorff, 1980). This was an important consideration, as our research took place in the middle of a pandemic strict lockdowns in major cities in both countries.

Once the data was downloaded from the online surveys, two authors of this paper acted as data analysts, and read through all the answers ($N = 2,159$) to the open-ended questions regarding the meanings of each security. These answers ranged from one or two words through to multiple sentences, which were coded/grouped by analyst agreement into categories according to similarity.

In conducting our Content Analysis (Schreier, 2012), we chose Consensual Qualitative Analysis (CQA) over Inter-Rater Reliability (IRR). Consensual coding with two raters is a collaborative form of coding which involves two researchers independently coding the same data according to a predefined coding scheme, then discussing their findings to reach a shared understanding and consensus on the coding and resolving any discrepancies interactively rather than calculating Kappa (Hill & Knox, 2021; Hill et al., 2005). Although CQA can be more time-consuming than IRR, it may also promote shared understanding of the data, thereby reducing potential for bias.

Once grouped, we worked together to reduce the categories into representative data which were further distilled into a narrative summary form (Krippendorff, 1980) for each human security dimension. These summaries noted both the similarities and differences in how the New Zealand and Australian participants defined the types of human security. These summaries were populated with extracts from the qualitative answers in the open-ended survey. We chose the extracts (in italics), that best exemplified that major points made in each summary and noted (A) for Australian and (NZ) for New Zealand participants.

Findings

Quantitative Observations

Tables 2 and 3 present summary comparisons for Australia and New Zealand on each facet of human security. From Table 2, the two countries are almost indistinguishable concerning facets of security that are most to least enjoyed by the samples. Cyber and health security on one hand, and political and environmental security on the other hand, were in reverse order, although the percentages of people reporting ‘yes’ to each facet of human security differed negligibly.

Table 2

Securities People Felt They Had (% of Sample for Each Country Agreeing)

Australia		New Zealand	
Personal	72%	Personal	70%
Food	71%	Food	65%
Health	68%	Cyber	61%
Cyber	65%	Health	60%
Community	62%	Community	58%
National	58%	National	55%
Economic	56%	Economic	51%
Environmental	47%	Political	45%
Political	42%	Environmental	43%
Global	34%	Global	29%

In Table 3, the descending MROs across the two countries were identical for the first 8/10 facets of human security. Thereafter, global and political security reversed order across the two countries, although in New Zealand the respective MROs for these two facets of human security were close (7.1, 7.2, respectively). Furthermore, the overall mean MROs did not differ. Hence, we combined both datasets.

Table 3

Rank Order of Importance From 1 (Most Important) to 10 (Least Important)

Australia	New Zealand
3.7 - Personal	3.3 - Personal
3.8 - Health	3.8 - Health
4.5 - Food	4.5 - Food
4.9 - Economic	4.8 - Economic
5.6 - National	5.8 - National
6.2 - Community	5.9 - Community
6.2 - Environmental	6.1 - Environmental
6.3 - Cyber	6.6 - Cyber
6.7 - Global	7.1 - Political
7.2 - Political	7.2 - Global
5.5 (Mean Rank Order - MRO)	5.5 (MRO)

When combined, these datasets produced a highly significant Kendall's $W = .180$, $df = 9$, $p < .001$). Rank ordering of the 10 facets of human security in our model therefore differed significantly from chance alone: i.e., there was reportedly a clear order of difficulty in securing each form of human security. Overall, the quantitative evidence between country groups was both consistent and convergent with the CQA (above).

Comparing male and female genders (non-binary, $n = 3$, was too small to analyze comparatively), and with Bonferroni Correction applied for 10 tests simultaneously (Alpha = .01), women were more likely to say they did not have the following securities, compared to men: health ($\chi^2 = 9.0$, $df = 1$, $p < .001$), economic ($\chi^2 = 21.9$, $df = 1$, $p < .001$), national ($\chi^2 = 6.7$, $df = 1$, $p = .01$), political ($\chi^2 = 7.2$, $df = 1$, $p < .01$), and cyber security ($\chi^2 = 18.5$, $df = 1$; $p < .001$). These two genders also differed (Wilcoxon-Mann-Whitney- Z) with women ranking more important than men on personal ($z = -4.3$, $p < .001$), health ($z = -2.7$, $p = .008$), and global security ($z = -3.0$, $p = .003$). Thus, gender was an informative predictor with respect to these human security facets.

Correlating age by year against 'yes/no' to each facet of security, and on MRO concerning their relative importance (Spearman's Nonparametric Rho), all correlation coefficients were less-than-or-equal-to $\pm .1$. Thus, age was not an informative predictor of human security in this study.

We did not measure wages or income; however, we did gauge employment status. Consistent with the CQA (above), on chi-squared tests, the single clearest marker of having a sense of security across 9/10 facets of human security was being in full-time employment ($p < .005$). The exception on this predictor variable (of employment status, full, part-time, casual, student, unemployed, retired) was, surprisingly, food security (ns, $\chi^2 = 10.1$, $df = 5$, $p = .07$). Even among those participants in full-time employment, 30 percent reported 'no' to being food secure (overall rate, including full-time employed = 32 percent). The largest chi-squared value (83.1, $df = 5$), meanwhile, was for economic security, with both retirees (62%) and full-time employees (59%) being the only two categories of employment status enjoying economic security over insecurity ($p < .001$). Thus, full employment was not sufficient to confer food security.

When we examined MROs for security facet importance (Kruskal-Wallis's H), there were two facets of human security where occupational groups in the sample differed significantly: national ($H = 16.0$, $df = 5$, $p = .007$, highest priority = retired, lowest priority = student), and environmental ($H = 20.3$, $df = 5$, $p < .001$; highest priority = student, lowest = in casual employment).

Thus, employment in general, and full-time employment in particular, whilst not being a guarantee of human security in all its facets, did link to improved human security on all but one of the ten facets in our decagonal model.

The role of occupational status on priorities for human security was less evident but did link to students reporting more priority on environmental and less on national security.

Qualitative Responses

Below, we offer a qualitative account of the meanings that each of the ten parts of human security held for respondents from both countries, and any national variations. There was overwhelming consistency across these nation states. As such, we only mention contrasts or emphases as these emerge in relation to given dimensions of human security. The findings also revealed how multidimensional, complex, and interconnected human security was for participants during COVID-19.

Personal Security

Participants defined personal security as *“the ability to be safe - physically, emotionally, and mentally both in my own home and out in the community”* (NZ). Personal security included feeling and being safe from harm, and participants talked about this as *“a sense of safety and stability in my own home, my own community, my own person”* (NZ), *“being able to go about my daily business feeling safe”* (A), and *“feeling safe in my own skin wherever I am”* (A).

People talked about how *“personal security could cover a huge range of matters ... applied to an individual. Security of having all one's basic needs met, safety in one's home and community, having enough security so as not to be burgled or invaded in one's home. Being given adequate advice and warnings about impending disasters etc. Personal security involves the development in the individual of secure attachment strategies so that in times of challenge, difficulties, disaster and so on the person has coping strategies that are constructive, efficient and effective”* (NZ). This identified the importance of financial security, a secure job and income, a reliable support network, a warm safe home, and access to other basic human rights.

It was expected that personal information and identification, including online information, would be kept private and safe from misuse. It was important there was *“personal cyber security to protect your identify and assets”* (NZ). Lastly, participants tied personal security to threats from crime, stating *“personal security is a general condition that occurs after adequate efforts are taken to deter, delay, and provide warning before possible crime, if such warning occurs, to summon assistance, and prepare for the possibility of crime in a constructive manner”* (NZ). As such, an adequate police force and other emergency services were seen to provide a sense of personal security through perceptions that help would be available when required.

Health Security

At a macro level, health security was seen as a *“concept that encompasses activities and measures across sovereign boundaries that mitigates public health incidents to ensure the health of populations”* (NZ). Participants conceptualized health security as having two key components: 1) *“maintaining your health by following advice and maintaining a healthy lifestyle”* (A); and 2) *“being able to access health treatment when needed”* (A).

Participants described having money and/or health insurance as increasing a person's access to healthcare and responsibilities for their own physical and mental health. For example, *“having good health, health insurance, money to address health issues. Money for healthy food, therapy, gym memberships”* (NZ). Importantly, but not surprisingly, COVID-19 was spontaneously identified as a threat to health security in several ways. Specifically, participants expressed they were *“worried about COVID”* (NZ) and the importance that *“I and my eligible family are vaccinated. Our state is not overrun with Covid; we have access to healthcare”* (A).

There were also tensions expressed about the safety of vaccinations, which was directly tied to concerns about *“freedom of choice for my own personal health decisions, no mandates by governments/others”* (A). The Australian and New Zealand samples had slightly different views of when they would use the public healthcare system and private insurance. For Australian participants, there was an emphasis on *“knowing that I have health insurance, such that if anything were to happen to me, that I would be able to pay/cover the costs of care”* (A). In contrast, New Zealand participants sought *“an assurance that if problems arise that the health services are adequate to deal with it public free health system, possibly life or medical insurance”* (NZ).

Food Security

“Food security is when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (NZ). Participants conceptualized food security as consistent and easy access to safe, healthy, good quality, nutritious food and *“being able to have the financial means to eat 3 meals + each day”* (A).

People were concerned that food supplies were *“...safe from terrorism and global environmental threat”* (NZ), including droughts and climate change. The ideal secure food supply was *“the ability of the country to source food sustainably without relying on outside countries”* (A), with no harmful additives, and limited genetic modification. To enable this to occur, an imperative was on sustainability in *“ensuring we have the resources to be able to feed the people we have. Ensuring the survival of food sources so we can feed our children in the future”* (NZ).

Cyber Security

“Cyber security is the application of technologies, processes and controls to protect systems, networks, programs, devices and data from cyber-attacks. It aims to reduce the risk of cyber-attacks and protect against the unauthorized exploitation of systems, networks and technologies” (NZ). Cyber security was commonly defined as being *“secure on the internet, protecting passwords, protecting our computer, phone, internet, and identity”* (A), relating to online activities in a broad sense.

At times this was related to a person’s responsibility to keep themselves safe by *“having good security software, antivirus installed on your computer to stop hackers etc.”* (NZ), with New Zealand participants mentioning the importance of security software more frequently than the Australian sample. Privacy of information and the security of personal details was a common concern for *“data protection, the ability to be safe from identity fraud or misrepresentation. Safety of personal details such as credit cards, address, identification etc.”* (NZ).

Cyber security was presented as being either partially or completely the responsibility of government in providing *“government protections from cyber hackers”* (A) (more so by the Australian participants). This further extended to the role of organizations in keeping participants data and details secure, especially *“protections from banks and financial institutions from the hacking of personal information”* (A).

Participants were also concerned about the marketing of personal details, such as companies selling personal email addresses. People desired the *“privacy and ability to maintain personal boundaries in online environments”* (NZ).

Community Security

“Community security refers to the approach to implement human security, human development, and state building concepts at local level. It aims to protect people from the loss of traditional relationships and values and from sectarian and ethnic violence” (NZ). Participants predominately defined community security as *“the ability to be part of and participate in a community (or communities) with common interest or belief, or geographic community”* (NZ).

Community security was associated with the ability for *“everyone in the community is free to be themselves and come and go as they please without being hindered by others with evil intent”* (NZ), being accepted for who you are, feeling a sense of belonging, inclusion, and having positive relationships with other community members.

People defined community security as feeling safe and being safe, as *“able to feel secure in the fact that you can move around your community safely ... to me that would involve when: walking for exercise both in the daytime and at night, shopping or walking through a local park”* (NZ), and about *“knowing and getting along with our neighbors, looking out for each other. Not having criminal activity around us”* (A). Highlighted was the role of *“community minded initiatives to ensure safety”* (A), including Neighborhood Watch, having a responsive local police force, security guards, and security cameras as critical elements in protecting members of a local community.

Local councils and governments were identified in securing the wellbeing and safety of the community through a need for *“confidence that the local government is doing the right things for its community”* (A), especially for Australians. Community security was achieved when *“... everyone has their needs met in the local community. affordable housing costs, plenty of food, good services and plenty of jobs”* (A), and that *“people living in a community have security when they are not subject to attacks on persons or property by other individuals, gangs, agencies, groups such as those that are*

racist/prejudiced and terrorists etc. and animals. It is about the relationships among all people and things in a community" (NZ). Unsurprisingly, COVID-19 was discussed as a threat to community security because *"due to the pandemic people are turning on one another, not respecting each other's choices re. vaccinations, therefore, if we don't stand as one, we can't be secure."* (A).

Economic Security

"Economic security is essential for the well-being of the individual, family, community and nation. Being able to provide for all the household, community and national needs whether immediately or planning for the future in a sustainable and equitable way is essential for the sake of the human as one among many species, other beings and earth in general" (NZ).

Economic security was seen as present and future focused, as *"the condition of having stable income or other resources to support a standard of living now and in the foreseeable future"* (NZ). The notion of economic security was strongly connected to *"jobs for all and businesses to thrive"* (NZ), and for *"fair wages paid for a fair day's work and government taxes wisely and spends appropriately for the benefit of its people"* (A).

COVID-19 was identified as threatening economic security through business closure during lockdowns, vaccination mandates impacting employment, and increased government expenditure during lockdown periods. Participants noted the need to *"to be sure that our economy will prosper. Not increasing taxes or changes if not absolutely necessary to ensure, particularly in this era of Covid 19, that all peoples can be assured of economic security in business or everyday life"* (A).

Functioning businesses generating employment for all, robust national economies and active participation in international trade, good standing within the global economy, competitive dollar, low inflation, stable interest rates, fair taxation, minimal country debt, low unemployment and poverty rates, and responsible government spending were all highlighted.

Economic security was imagined through *"the country creating sufficient jobs for our workers in all kinds of industries to in turn create sufficient funds for the Government to run the country and look after our older citizens"* (A), and through *"government leading through constructive policy making and business making sound decisions to ensure the continued free flow of essential goods and services necessary to sustain our quality of life"* (NZ).

National Security

National Security was seen as the *"security and defence of a nation state, including its citizens, economy, and institutions, which is regarded as a duty of government"* (NZ) and *"being safe from physical, cyber, or environmental attacks from foreign or domestic actors"* (A). Protecting the economy, population health, and the importance of personal freedom were seen as requiring *"stable local and national systems and infrastructure that allows for the production and equitable distribution of wealth and health amongst its citizens, as well as protection from external threats"* (NZ), with the Australians more concerned about threats from other countries.

Participants in both countries were concerned about border security in terms of *"keeping our borders safe and making sure the people who do come into our country are not only here for themselves but to help improve our country, not destroy it"* (A), along with *"preventing and intercepting physical terrorism and extremism"* (NZ). Many respondents described that *"living in a country that has a reliable police force, active judicial system, and armed services of a high standing"* (NZ) was crucial for national security. Both Australian and New Zealand participants indicated that national security was connected to global security, noting the protection of geographical isolation should invasion occur, and that both nations would also need to rely on *"inherent protection provided by strong alliances"* (A).

Environmental Security

Participants defined environmental security as *"consideration for our planet and an active reduction in pollutants, active marine protection and replacement and revegetation plans, active population planning, and total renewable energy systems"* (NZ). This meant *"ensuring that the planet is in at least the same condition that we 'inherited' in, preferably better. Doing our parts to ensure that at the personal, local and national level, that we are doing all we can to protect the environment for future generations"* (NZ). This included *"safe air and water"* (NZ), *"securing biodiversity and ecosystems and mitigating climate breakdown"* (NZ), having *"safe food and water, no harmful contamination"* (A) and being *"free from pollution"* (A).

A safe environment was also discussed in terms of natural disasters such as tsunamis, earthquakes, volcanic eruptions, bush fires, weather events, and flooding. Australian participants frequently cited bush fires, whilst New Zealanders were more concerned with earthquakes and floods. Humanity's responsibility in *"making sure that our planet is looked after and treated with respect"* (A), and taking *"effective action to ameliorate climate change problems and species protections"* (NZ) was discussed extensively by participants.

Some of the environmental protection strategies identified by participants included recycling, having sustainable food supplies, minimizing carbon emissions, using renewable energy sources, reducing pollutants, protecting green spaces, and using environmentally friendly products. Environmental stewardship was seen, in part, as having *"laws that protect the water, the land, the trees, and our wildlife"* (A) and *"that people generally, and governments and businesses are promoting environmentally friendly actions and lifestyle"* (NZ).

Participants discussed the desire for *"assurance that our political leaders and higher-up people know what they are doing when it comes to environmental issues (primarily climate change), and they are doing something about it"* (NZ).

Political Security

Political security was defined at the fundamental level as *"concerned with whether people live in a society that honors their basic human rights"* (A). Human rights were commonly mentioned as a general foundation for political security, and seen in terms of different forms of freedom such as *"freedom of speech, choices, religion, political affiliation, human rights, etc. Freedom to vote"* (NZ), and *"freedom of health decisions, freedom of movement"* (A).

Political leadership and governing bodies were particularly important and discussed in terms that a *"system of government is functional and democratic"* (NZ) within which *"decision making, policies and process are run in a democratic manner, and the elected officials are free from corruption and political parties are stable"* (NZ).

Emphasis on trust in the government was discussed frequently by both Australians and New Zealanders, in terms of *"having a stable and trustworthy government"* (NZ), how *"stable government that safeguards against violent authoritarianism"* (NZ) and the necessity for *"feeling the political powers that run the country can keep our country operating safely"* (A) by providing *"the protection from repressive political entities and the promotion of human rights"* (NZ).

Reference was made throughout to the importance of preventing terrorism and civil unrest, along with war in general, and ensuring there was no militarization of the government as part of protecting democracy. Participants also felt it was important *"we have a free & safe election process"* (NZ) and *"freedom to speak out and protest when government policies or politicians do not reflect fair and socially just principles"* (A). Also mentioned was a need for politicians to create policies and make decisions that reflected *"that the government has the best interests of the population at heart"* (NZ).

Global Security

"International security, also called global security, is a term which refers to the Global security and the ways in which attempts are made, to keep the population of the world free from great harm from various sources, by States and bodies established particularly after WW2 (e. g UN, WMF, NATO, ANZAC) and other international organizations and NGOs. These measures include military action, treaties and conventions. International and national security are integrally connected with each other such that, international security is national security or state security in the global arena" (NZ).

A repeated understanding of global security was *"the world being able to live without the threat of invasion, war, famine, floods, and terrorism"* (NZ), and *"that there is no nations or factions attempting to strong arm their way to power either economically, politically or militarily in any area of the world"* (NZ), along with *"conservation of the planet and its resources"* (A). Some participants mentioned rogue nations in this respect and mentioned a variety of countries, including Russia, China, North Korea, Afghanistan, and the United States. Stability of the nation was seen as significant to personal feelings of safety, which included cyber security, and safe unimpeded international travel and trade.

Nuclear weapons were mentioned as a continuing threat and the overriding need for *"sensible world leaders not pushing the nuclear war button"* (NZ). The COVID-19 pandemic was mentioned, as was the need to control future pandemics. Achieving *"global security includes military and diplomatic measures that nations and international organizations such as the United Nations and NATO take to ensure mutual safety and security"* (A), which further included *"Interpol,*

international cooperation between police forces and security forces of different countries” (A) and “knowing that, overall, there is little likelihood of militarized conflict and that there is overall a high level of cooperation amongst the majority of countries” (NZ).

Ultimately, global security was conceived as *“that the world lives in harmony, with respect for other countries and that the world's citizens are able to live their lives in peace” (NZ).*

Discussion

Human security can be seen as an interconnected system of the ten different forms of security. Security was seen by both Australian and New Zealand participants as physical, achieved through a state of *being* safe, and as psychological, through a sense of *feeling* secure. Personal security was linked to health, community, national, environmental, and global security. Within participant's understandings of personal security there were also larger scale concerns that manifest in personal lives, dimensions such as economic, environmental, and national security. Key elements emerging within this system of human security included physical and social settings, institutions such as local and central government, economics which included stability of the national economy along with financial security through secure incomes and decent work, social order (especially around matters of crime), and the relations within and between nation states associated with threats of disruption to everyday life (such as a pandemic).

To illustrate, a healthy global population was seen by participants as crucial for global security, which, in the case of the COVID-19 pandemic, was often linked to policies around control of national borders, vaccination requirements, and economic relief through wage subsidy schemes during lockdown. We saw that safeguarding economic security came closest to being a master-switch that covered all human security bases. Environmental security was linked with food security in the desire for nutritious, uncontaminated and sustainable food. Basic human rights and freedom of speech, movement, and association in the face of lockdowns, and vaccine passports, become key aspects linked to political security. Participants placed community security under threat due to social divisions over vaccine choices, whilst cyber security was positioned as protection from attack on technology systems, privacy, and data.

We were also able to examine the meanings that people gave to the different parts of human security to establish a baseline in any subsequent gauging of person-environment, subjective-objective, fit. Baselines are important as they provide the means to organize information to generate bottom-up information. Gathering meanings about human security at the objective level gives us an understanding of how decision making, and its consequences, are top-down. Once the subjective and objective meanings (and subsequent decision making) are understood both from bottom-up and top-down perspectives, we can see what the gaps or differences are and somewhat measure the ‘fit’.

The differences between the forms of security that participants felt they had, compared to what they ranked as most to least important, is an indication of ‘fit’ at both an individual and collective level. Mostly, participants in both countries had the forms of securities that were most important to them in roughly the same order, which was relatively the same between countries. This trended from personal and proximal out to the global or more distal dimensions. At an intuitive level, this makes sense if we accept the importance of a sense of agency, control, and safety as key elements of human security. That does not mean, however, that global considerations are not evident in accounts of more proximal dimensions, for example when global health issues, major conflicts, and climate change threaten local food supplies and distribution, health service, and personal and community security. This makes sense when psychological security is gained from a sense of personal significance and belonging, which is largely achieved from being securely connected to society (Adler, 1925), and from understanding oneself in terms of group memberships, group dynamics, and social contexts (Tajfel & Turner, 1986).

The only exception and discrepancy between ranking forms of security that participants felt they had, and what was most important to them, was economic security. Both Australians and New Zealanders ranked it as the 4th most important form of security, yet both groups ranked it as the 4th least form of security (7/10) they felt they had. This was the case for just over half the participants in each country, (56%) for Australians and (51%) for New Zealanders. In thematic terms, it was also most connected with the other forms of human security.

Participants linked economic security to successful businesses, stable employment, and jobs that provided decent work, which allowed for a sustainable standard of living in the present and for the future. Decent work that is productive and paid, undertaken in safe and secure conditions, which enables the funding for social protections (benefits, wage subsidies, education, healthcare etc) is the foundation stone of economic prosperity for individuals, communities and nations. Our findings raise the possibility that livelihoods, and the function they serve by helping to protect economic security, is central to human security in general (Carr et al., 2024).

The creation of livelihoods was seen as the means for generating taxes, which participants of both countries saw as necessary to run the country, participate in the global economy, and support citizens. Economic security is then grounded in ‘collective consciousness’ (Dontsov & Pereyagina, 2013), within which the individual, community and national needs were met for both Australians and New Zealanders. Psychological security was connected to the threats of the pandemic at multiple levels, which was shared by the nation, communities and individuals. requiring unified and cohesive responses. However, the possibility for tensions arises when varying appraisals of the threats to human security as both a system and its parts occur, which in turn, creates different coping strategies (Lazarus & Folkman, 1984). Heuristically informed decision-making processes then assess the trade-offs between the probability and gravity of the threat against the scale and size of the costs (Schneier, 2008). For participants, this was the case between health-economy trade-offs in balancing economic security with health security due to vaccine mandates, lockdowns, and increased government spending.

These trade-offs must be finely balanced to avoid ruptures to social cohesion, especially in places where socioeconomic, ethnic or religious fracture lines already exist (Hopner et al., 2021). Countries such as Sweden used health-economy trade-offs to protect social cohesion in prioritizing civil liberty over social rights, and by managing conflict resolutions “through social democratic processes rather than through strict legal constraints” (Sommar et al., 2025, p. 20). Refusing to engage in coercive practices around freedom of movement, such as lockdowns, a high trust model encouraged people to quarantine when sick, socially distance, and self-regulate responses to COVID-19 (Sommar et al., 2025).

During times of crisis such as a pandemic, containment measures like restrictions on freedom of movement, and freedom of association (especially from workplaces and public places), that cause social and economic disruptions can create a “psychological burden” on people, subverting perceptions of physical and emotional security. In turn, these perceptions can become shared and assumed at a collective level, magnifying social tensions and placing pressure on social cohesion (van der Zwet et al., 2022, p. 2). Participants’ comments around community security and the emphasis on upholding basic freedoms indicated that these pressures were recognised in 2021. These pressures can readily turn into grievances and civil resistance. In February 2022, five months after this survey was completed, mass protests in New Zealand led to an anti-vaccination related (mandates, masks, lockdowns) occupation of Parliament grounds over a 23-day period, which ended in violent riots (O’Brien & Huntington, 2024).

Initial support for the NZ government’s elimination strategy led by strong political and public health leadership was evident in community solidarity and trust in these authority figures (Royal Commission-COVID-19, 2024). Related research has shown that during the pandemic, support for authority and political institutions was correlated with fear and stress, as people grappled with the existential threats to mortality, the economy, and health systems (Foa & Welzel, 2023). Initially, New Zealand’s elimination strategy was successful, deaths were prevented, large scale unemployment was averted, and the health system was protected. However, there were long term harmful effects: some groups (e.g. Māori, Pacific, and disabled), who were already suffering socioeconomic and health inequalities, were further disadvantaged. The decision to lockdown Auckland, New Zealand’s biggest city and economic powerhouse in 2021 (the time of our survey), had significant individual, educational, social, and economic costs which compounded as political leaders and public health officials struggled to exit from an elimination-led strategy. This led to a lack of clear purpose, waning public support, and increasing resistance to compulsory public health measures (Royal Commission-COVID-19, 2024).

We suggest it could be useful to gather the subjective meanings of human security and its parts in real-time, then connect them to a system, which monitors dynamic shifts of what securities become most important at particular points in time. Doing this can act as a temperature-taking exercise to gauge the fit between objective and subjective levels and identify pain points. In the case of the pandemic, this would be how decision making at the objective levels of human

security (i.e. legal, political, and economic systems) are perceived as aligning with the subjective meanings and security provisions for people. Through Fit Theory, it becomes possible to see both the objective and subjective levels acting in a functional and symbiotic relationship with one another.

Here we are pointing to a possible path regarding the scale of focus in terms of how to promote human security in the practical world. A possible way forward is ‘bottom up’ – to develop broad understandings that encompass the complexities of human security across the various dimensions in everyday life. We saw from our own findings that there are identifiable patterns of security concerns and solutions in people’s everyday accounts of what security means to them. These related to a national emergency (pandemic, national lockdown) in a bottom-up way. Thus, without losing sight of the top-down or objective view, decision making around human security can focus on the unmet specific dimensions/needs, with workable solutions.

Future research should begin to explore how efforts to effect changes that address issues relating to one part of human security can result in shifts in other parts. Particularly relevant to such work is further development of our understanding of issues of scale, and how aspects of some of the more proximal parts of human security (personal, health and community) can be shaped by the more distal, and to that extent ‘top down’ decision-making at the national and global levels. A key limitation in our exploratory study was the lack of representativeness in our samples of the wider population. Future research must address this issue with better samples.

Conclusion

Human security has everyday foundations, as well as policy ceilings. Matching the two is key for protecting human security during times of crisis. Systems thinking and theories of fit suggest ‘that’ the match matters, but ‘how’ it matters can be calibrated through a balance of quantitative and qualitative research that gauges human (in)security across 10 human security dimensions, ranks their relative salience, and captures their meanings. These can then be compared with decision making at the objective level and adjusted to better serve and sustain human security.

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