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ANNOUNCEMENT

- 2017 International Conference on Quality of Life will be held in Penang Malaysia. We will soon be accepting applications for submissions.
- Proceedings as well as photos and other information from this year's conference can be found on our website.

MORE INFORMATION AT HTTP://AS4QOL.ORG/ICQOL2016/

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Crisis, *Crisis*, the "Stool of Resilience", and Adaptive Capacity at ICQoL2016

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1. Introduction

Recently an experiment was performed in the city of Kyoto that its subjects hope will have impact far beyond its borders. The participants (n=30) were not chosen, but chose themselves to participate and engage personally and collectively; they took part by more than giving consent, but affirmation and a call to action. The methods used were both traditional and innovative, both diverse and yet sharing at least one common instrument: the voice of reason and human intellect. The hypothesis it sought to prove, to improve, was one that has been at the core of human development since the first struggles for survival challenged our oldest ancestors, that to survive and flourish, we must be resilient and adapt.

Who were the subjects of this experiment? A conference-full of researchers from many walks of life, old and young, scientific, artistic, humanist, renowned, unknown, rural and cosmopolitan. In short, they encompassed a diverse spectrum of cultural and ideological approaches yet found common cause in being here.

The experiment itself, then, the 2016 Conference on Quality of Life¹, brought them together to build bridges over these differences in recognition that we in the world face a multitude of local and global crises that require the full range of human intellectual capacities to address. However, a glance at the abstracts they presented, spanning an eclectic mix of seemingly unrealted topics, pitting together on the same stage for example, funding for research and development and square dance for seniors, Japanese gardens and K+ channel blockers in the metabolism of Vitamin D, etc...belied their common purpose. It is the purpose of this essay to step back, with the perfect vision of hindsight, place this amalgram of talks into a larger more cohesive perspective.

2. Crisis, the Crisis of Crisis, and QoL

The major theme of the conference, as its title stated, was Quality of

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the "Stool of Resilience", and Adaptive Capacity at ICQoL2016. *JAS4QoL* **2016**, *2(3) 4*:1-6. Available online at

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Life (QoL). But I think it is most apt to consider this in the context of addressing "QoL in the face of crisis". We are in the world at a time that it does not take much to argue is overrun with crises, on all levels and dimensions. We are faced with unprecedented challenges to well-being, at the personal, family, tribal, community, societal, national, international, and global levels. While the natural first response (after perhaps feeling overwhelmed) is to face these challenges individually; However, these crisis are interlinked, both in their common causes and mutual dependence, as well as in their mutually interacting consequences and in their effects and countereffects. Furthermore, it is not merely the number and breadth but the complexity of the crises themselves that impose a new order of difficulty, as well as the fact that these sundry crises² are more enduring and recalcitrant than ever, creating further effects such as fatigue and increased vulnerability. We must address the nature of crisis itself and arrive at deeper and more essential strategies of response.

Whether it is called adverse cirsumstances or a crisis or a disequilibrium or an imbalance, it is almost universally agreed that earth, not merely from a human perspective but that of all life, is facing a crisis, and the earth and the living beings on it must absorb and adapt to this change.

Thus, we face a *Crisis* of crisis, and it is a Crisis of multiples of multiples of dimensions.

3. Resilience

In light of this, the second concept to form the backbone of the conference was that of resilience. Though resilience has long been a topic of concern³, the modern ecological or engineering view of resilience initiated with the work of C. S. Holling⁴. He defined it simply as "measure of the persistence of systems and of their ability to absorb change...and still maintain the same relationships between populations or state variables"⁴. This definition has since been applied and adapted in a wide variety of areas including psychology and other social sciences^{3,5} though this has led to some vagueness in the meaning of this term⁶. Likewise, the related idea of psychological resilience, has been defined as an individual's ability to successfully adapt to life tasks in the face of social disadvantage or highly adverse conditions⁷ and social resilience has been defined as the ability of groups or communities to cope with external stresses and disturbances as a result of social, political and environmental change⁸. There is a common kernel that aligns these slightly different conceptions together, and likewise, the presentations at the conference were bound by this kernel, and we will move freely between these different views.

4. The Four Legs of the Resilience Stool

One set of concepts we will mention in this review was originally developed by ecologists Walker, Holling, and others⁹. They defined what I will herein dub the "four-legged stool" upon which the resilient of a system rests: latitude (how much it can withstand), resistance (how "resistant" it is), precariousness (how close it is to its threshold limits), and panarchy (the way the different levels influence each other). As with a real stool, each leg of the resilience stool has a role to play in maintaining the overall stability landscape. Panarchy, especially, and the related concept of adaptive capacity, which measures

^{2.} In fact, it is already banal to list them!

^{3.} Pęciłło, M. The Concept of Resilience in OSH Management: A Review of Approaches. *International Journal of Occupational Safety and Ergonomics* **2016**, *22* (2), 291300. http://dx.doi.org/10.1080/10803548.2015.1126142

^{4.} Holling, C.S. Resilience and stability of ecological systems. *Annu. Rev. Ecol. Syst. Annual Review of Ecology and Systematics* **1973**, *4*(1), 1–23. http://dx.doi.org/10.1146/annurev.es.04.110173.000245

^{5.} Pęciłło³, above, states, "Currently, the term 'resilience' is present in many fields, from mechanics to a broad range of psychological and social sciences. Some research on resilience even focuses on areas such as urban resilience, the education system and organized crime. The concept of resilience has been adopted in the policies of numerous governments, including those of the USA and Canada; it has also been adopted by the United Nations, as the development of resilience in national and global resilience has been set as a priority for global safety policy. The European Commission has defined its approach to resilience on the global level, e.g., in the 'Communication from the Commission to the European Parliament and the Council. The EU Approach to Resilience: Learning From Food Security Crises'."

^{6.} Brand, F. S., and K. Jax. Focusing the meaning(s) of resilience: resilience as a descriptive concept and a boundary object. *Ecology and Society* [Online] 2007 12(1): 23. http://www.ecologyandsociety.org/vol12/iss1/art23/

^{7.} Rutter, M. Developing Concepts in Developmental Psychopathology; 2009.

^{8.} Adger, W. N. Social and Ecological Resilience: Are They Related? Progress in Human Geography 2000, 24 (3), 347-364. http://dx.doi.org/1.1191/030913200701540465

^{9.} Walker, B.; Holling, C. S.; Carpenter, S. R.; Kinzig, A. Resilience, Adaptability and Transformability in Social - Ecological Systems. *Ecology* and *Society* 2004, 9 (2), 5 http://www.ecologyandsociety.org/vol9/iss2/art5/

the ability to change this stability landscape, are arguably the most important to understanding resilience in face of crisis.

Our focus will not be, nor would it be possible, to fully analyze the conference within the fully articulated theory of resilience¹⁰, but to use it as a heuristic springboard for reflection, i.e. as way to paint a picture in broad strokes of the conference.

5. Panarchy: Thinking Locally and Globally

At a basic level, panarchy, though ultimately far more complex^{11,12}, represents the wisdom of "thinking globally, acting locally". **Dr. Zilkha**¹³, the keynote speaker, gave an enlightening global yet local view of the various levels of the *Crisis*. His focus was on the issue of education and research and development, but he eleborated on the factors that are involved in addressing these issues form both a global and local (i.e. Israeli) perspective. For example, he discussed how different political paradigms, i.e. the so called liberal and welfare state economies, lead to different outcomes in Quality of Life, as measured by the Gini Coefficient. That this forms a measure of resilience ultimately derives from the intimate connections happiness has with resilience and quality of life, a topic addressed in other presentations. Importantly he discussed established the hierarchy of needs that need to be addressed in addressing these issues and how they interelate, i.e. a panarchic perspective. The disussion touched on economic struggles in various parts of the world, and the effects of war on limits to the adaptive capacity in the face of crisis.

Many of the presentations, on the other hand, such as **Mui**'s presentation on a water conservation education program, were more focused at the lowest level of local concerns and everyday life, yet inevitably reflected global concerns. Her action based program looked directly at the ways water was used in the everyday life of the students, yet it aimed to connect their behaviour with the problem at the global level. In a similar vein, **Wu**'s comparison of university life in China and Japan reflected how different institutional regimes can affect many different aspects of life across borders and in different cultures.

6. Looking Forward by Looking Back

While these papers approached the topic *in medias res*, **Noguchi**'s paper bears on the issue of measuring resilience *post hoc*. Her retroactive study (updated and included in this issue of $\mathcal{J}ASQoL$) examined quality of life as it evolved in the case of a elderly and eventually deceased VP patient. Her conclusion was that the system ultimately failed because of a failure to consider the interactions between the various attempts to solve the original problem¹⁴. One lesson to be drawn then from this case is that it sometimes too late for us to "retrospectively" address a crisis, and certainly we have no such luxury as far as *Crisis* is concerned. We can and should look carefully at the losses we have already incurred, but we must not be complacent, or believe that just because a problem is being addressed, that it is being addressed correctly. This is a topic that will come up later.

Another way of looking back to look forward was given a paper by **Imae** on the intentions of garden owners in Kyoto. His focus was on how personal crises in the lives of the owners eventually, and somewhat accidentally, led to multi-generational consequences in how those gardens were designed, passed on, and how they exist today. Looking back on the situation and motivation of the garden owners he suggests that flexibility and being able to consider *crisis* as a evolving process are critical to understand

^{10. &}quot;The panarchy framework connects adaptive cycles in a nested hierarchy". see the Resilience Alliance – Panarchy. http://www.resalliance.org/panarchy.

^{11.} Gunderson, L. H.; Holling, C. S. Panarchy: Understanding Transformations in Systems of Humans and Nature; 2002.

^{12.} Gotts, N. M. Resilience, Panarchy, and World-Systems Analysis. *Ecology and Society* 2007, *12* (1), 24. http://www.ecologyandsociety.org/vol12/iss1/art24/

^{13.} Names in boldface represent ICQoL2016 presenters. Abstracts and other materials related to individual lectures can be found at http://as4qol.org/ICQoL2016/handouts-and-media/ and in note 1.

^{14.} Again, it would be somewhat banal to detail available litany of similar examples, but for specificity especially as to global concerns, I will mention two, the so-called "Green Revolution", or IMF/World Bank Structural Adjustment Programs. Each of these well-documented examples where good intentions have gone bad and have led to further complications and desparate attempt to fix the problem because we failed to fix it the first time. The 2007-09 Global Financial Crisis is another one that most prominently comes to mind, of a kind of self-inflicted and not unpredicatable crisis whose consequences are clearly still being worked out.

ing decision-making.

Crisis is an opportunity to examine where we have been to see it in a new light. One of the elements of adaptive capapcity is the ability to be innovative, to develop new strategies when the old ones are proven ineffective. As in Imae and Noguchi's papers, the second keynote speech by **Ikegami**, in addition to being an entertaining yet significant reexamination of the historical literature, presents an example of the growth of human knowledge out of superstition, and also posed significant questions about the state of pharmaceutical education today.

7. Happiness

So, why is measuring happiness important as relates to resilience? One answer was given in the two presentations by **Kang and Lee**. They examined the concept of "serious leisure"¹⁵ and showed that it has a complex interdependent relationship with happiness, stress related growth, and ultimately, quality of life. Kang stated, "serious leisure not only [leads to] stress-related growth but also [was] a significant predictor of happiness." Interestingly, Lee's finding was that the level of satisfaction was the critical element in getting serious leisure to improve quality of life. Participation is beneficial, but the pleasure we derive from recreation is important. In resilience terms, happiness and level of satisfaction/enjoyment is a critical component of making developing resilience stick and is a measure of how well we are doing at facing our crises.

8. Recreation and Physical effects

Another recurring theme was that recreation, either in the form of physical exercise, or in the case of **Hatta**'s Chin Don Therapy, merely paying attention, can have a beneficial effect on the bodies ability to fight disease. Hatta reported on the protective effect of biochemical changes that occurred from watching and reminsicing about pleasant experiences. **Lo** studied the prevention of Coronary Heart Disease through square dancing. These papers emphasized that natural systems already have a certain resilience, resilience can be tapped into and improved, often at little cost, and that creating the right vision of the desired outcome, whether it be retrospectively via memory or prospectively through new experiences, helps us develop it.

Several other papers also aimed to develop biological resilience in treating human disease. This was exemplified in several papers. **Khatun** investigated the role of Vitamin D in preventing Breast cancer. **Wang** and **Matsuda**, in their reports, likewise examined combinations of medicinal plants in inhibiting skin cancer, obesity and diabetes. **Endo** reported on a new strategy for combatting inflammatory bowel disease.

These cases share in common an attempt to change the "stability landscape" by improving resilience through the inherent adaptive capacity of the human body to produce healing, which I will call the "medical model" of resilience. In a wider sense, they reinforce the understanding that sometimes simple measures can be effective in responding to a crisis, especially if one works with the capacities already existing within the system or surrounding environment.

9. Affirming Life. Death as Constitutional and Institutional Crisis

One of the interesting things about a conference was that it was able to create interesting juxtapositions of different views on the same topic, or of showing interesting commonalities between different topics. For example, as in Noguchi's paper, several papers took up the theme of death. Naturally, death is the ultimate *Crisis*. Not all crises involve death, but I would argue that all crises bring us closer to death. Certainly they involve a sense or fear of loss, and loss, grief, and so on are often the basis of our feelings towards death.

Dale focused on the writings of certain well known authors facing death, each of whom was able to find a way of affirming life through their intimate experience of facing death. Intriguingly, questioning

^{15.} as given in, for example, in Elkington, S.; Stebbins, R. A. *The Serious Leisure Perspective: An Introduction*; Taylor & Francis, 2014. and Stebbins, R. A. The Serious Leisure Perspective. In *Leisure and Positive Psychology: Linking Activities with Positiveness*; Palgrave Macmillan UK: London, 2015; pp 11–40.

the often cited finding that positive thinking is an important factor in developing resilience¹⁶, she asks if it is important to think positively when facing death.

Following directly upon the heels of this presentation, **Jenkins** (legal) also examined death as it relates to legislated regimes for assisted dying and palliative care. This, for me, was one of the most interesting presentations as far as the notions in this paper are concerned. It emphasized the need to look at the way legal and other institutions are implicated and undergo change in many of the crises we face globally. Death itself has an essential philosophical role as a prototype for crisis, with assisted dying to be interepreted as a form of surrendering to, and even embracing and heading into crisis, in the compassionate service of human rights, dignity, happiness, or other weal. This radical inversion of crisis itself turns crisis into positive element¹⁷, however, as her paper discusses, the appropriate "regimes" should be in place to ensure this conforms to these goals.

Likewise, if death is literally a case of "constitutional" failure, then I think it forms an analogue for "institutional" failure, as already mentioned a key element in many crises¹⁸. Not only have we been and are we likely to continue facing many instances of institutional failure, but, often overlooked or underemphasized or -examined is that these failures then facilitate further failures. Futhermore, especially with respect changes to political or social institutions, the ability to change institutions is itself becoming more difficult. Death, with its implication of the ultimate loss of an individual or institutions, and galvanize action, as well as perhaps give us the wisdom to learn when to let go. Are there institutions which should be allowed to fail if we are to be resilient? I see this as a rich topic that warrants further exploration.

10. A Turn for the Better

Not all lectures seemed at first blush to fit neatly into the scheme. **Mathews**, for example, apppeared to be taking a literary detour, when he raised the subject of how the poetic concepts of tenku and volta can be used in non-fiction narrative. Tenku (転句), he explained, is the inflection point in the third line of a Japanese shichigon-zekku (七言絶句) poem that allows us to see its true meaning. He then allied this with the "volta" or turn, in western sonnets. This might seem to have little to do with addressing *Crisis*, but I think it addresses the precariousness leg of our stool. The essential question in addressing many crises¹⁹ is are we at a turning point or not? Despite its unique qualities, *Crisis* as we face it derives from crises that have been with us for ages, that have been part of the human struggle since the beginning. The question is, have we reached the 3^{rd} line of the poem, or are we well past it, or just at the beginning? Which type of conception you have of the problem greatly affects your approach. Whether we face a *Crisis* or a crisis, how we should address this question informs a great deal of the political, social, or personal debate and the kind of adaptive response used in response. Examining how authors have used this concept can help us understand where in the narrative of *Crisis* we are.

11. Resilience as Process

By contrast, while some papers initially seemed off-topic, resilience itself was directly referenced in one of the more striking lectures of the event. Participants could not fail to have been struck by the power of Hong Kong activist Stanley **Cheung**'s story of personal tragedy – a traumatic and disfiguring fire suffered at the age of 12 - but also inspired by his message that we can and should develop resilience in the face of challenges. He emphasized that resilience is not a state but a process⁷, one that is filled with ups and downs and constant need for experimentation, creativity, and constructive reappraisal. In his case there was no doubt about the power of positive thinking.

12. Problem-solving and Confidence: Learning from and for Crisis

As we have stated, the ability to reexamine and learn from crises is an important adaptive capacity. Furthermore, planning for or expecting future crises - not to say predict crisis, but putting into place at -

18. Again, banal to elaborate, but see note 14, above.

^{16.} for example, see Fredrickson, B. L.; Branigan, C. Positive Emotions Broaden the Scope of Attention and Thought-action Repertoires. *Cognition & Emotion* 2005, *19* (3), 313 http/dx.doi.org/10.1080/02699930441000238.

^{17.} As the saying goes, "crisis is opportunity", a sentiment itself inverted in the oath "may you live in interesting times".

^{19.} banal example: Global warming.

titudes, resources, and other elements that will allow them to be addressed when they arise – is critical. This is why education and R & D are important, as underscored by Zilkha, but also in the work of researchers like **Tam**, who used a "Question, Explore, and Experience" learning model as part of program for teaching problem-solving to children. She discussed the stages involved in this process, and some of the challenges in creating appropriate environments for this to happen.

Likewise, another factor important to our adaptive capacity is confidence; confidence maximizes our capacity to act and stabilizes us to prevent crisis from proceeding beyond our ability to manage. Furthermore, confidence is an attitude that can be established over time in preparation for future needs. **Kobayashi** gives an example of this wherein she endeavoured to build confidence in university students facing the challenge of learning English. Again, as in Kang and Lee, increased their satisfaction with the learning experience itself led to greater results.

13. Translating Paradigms

We state again that crisis at any level involves a challenge to existing structures and paradigms. Another form of adaptive capacity that extends the "medical model" mentioned above is the ability to develop and incorporate new paradigms and apply them as a doctor might apply a (new, experimental) therapy. However, in the framework of global and individual crises, a recurring problem is translating these new paradigms into the original context itself causes crisis. Thus, if we examine, say global warming, new technologies (solar), to the extent that they are beneficial, can also disrupt existing technologies (say coal) in a way that creates crisis elsewhere (unemployment). **Nishimura**'s paper on the use of Baker's translation theory²⁰ to improve medical communcation addresses this sort of problem in the context of providing medical care when there is a lack of parity between the language of the doctor and patient.

14. Conclusion

At best, the above is but a superficial treatment of the work of the many fine researchers cited, but by stepping back and reflecting on the conference in this way some interesting connections between these papers, common threads that bind them, and ultimately of valuable insight into the critical nature of the *Crisis* of crisis we face today and how to address it have been elucidated. Certainly these papers raise interesting and significant questions about resilience and adaptive capacity that are worthy of further investigation. No doubt conferences like this one, and the work of these researchers will continue to inform this important discussion, and we look forward to once again examining them at ICQ0L2017!

^{20.} Baker, M. In Other Words: A Coursebook on Translation, 2nd ed.; Routledge: London, 2011.