

The OECD's 'Well-being 2030' agenda: how PISA's affective turn gets lost in translation

经合组织“福祉 2030”议程：PISA 的情感转向如何在翻译中迷失

Jeremy Rappleye, Hikaru Komatsu, Yukiko Uchida, Jeanne Tsai & Hazel Markus

To cite this article: Jeremy Rappleye, Hikaru Komatsu, Yukiko Uchida, Jeanne Tsai & Hazel Markus (08 Nov 2023): The OECD's 'Well-being 2030' agenda: how PISA's affective turn gets lost in translation, Comparative Education, DOI: [10.1080/03050068.2023.2273640](https://doi.org/10.1080/03050068.2023.2273640)

To link to this article: <https://doi.org/10.1080/03050068.2023.2273640>



Published online: 08 Nov 2023.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)



The OECD's 'Well-being 2030' agenda: how PISA's affective turn gets lost in translation

经合组织“福祉 2030”议程：PISA 的情感转向如何在翻译中迷失

Jeremy Rappleye ^{a*}, Hikaru Komatsu ^{b*}, Yukiko Uchida ^{c*}, Jeanne Tsai ^{d*} and
Hazel Markus ^{d*}

^aFaculty of Education, The University of Hong Kong; ^bInternational Degree Program in Climate Change and Sustainable Development, National Taiwan University; ^cInstitute for the Future of Human Society, Kyoto University, Kyoto, Japan; ^dDepartment of Psychology, Stanford University

ABSTRACT

Well-being 2030 has become the latest rationale for the OECD's education work. This vision has given rise to new assessments of student well-being beginning with PISA 2015. The OECD, recognising the problems of PISA 2015, conceptualised a wider student well-being construct in PISA 2018, and attempted to measure 'students' feelings'. However, analyses of the OECD's affective turn reveal major problems remain. Our critique is empirically underpinned by an innovative analytical strategy: comparing PISA 2018 student questionnaire translations across different 'economies' that use the same written language (China, Hong Kong, Macao, and Taiwan). Our analyses confirm that the OECD imagines a cultural and context-free world, one in which translation and measurements are simply technical problems to be engineered, rather than deeper 'problems' of worldviews that require attunement. To encourage the OECD to recognise these differences in its future assessments, we offer starting points from recent research in cultural psychology.

摘要

“福祉2030”已成为经合组织教育工作的最新理念。这一理念催生了自PISA 2015起新的学生福祉测评。认识到此项测评中的问题后，经合组织在PISA 2018中提出更宽泛的学生福祉概念，并尝试测量“学生的情感”。然而，对经合组织情感转向的分析表明，主要问题依然存在。我们的批评以一种创新性的分析策略为实证基础，即对使用相同书面语言的不同“经济体”（中国大陆、香港、澳门和台湾）的PISA 2018学生问卷翻译进行比较分析。我们的分析证实，经合组织设想了一个无关文化和语境的世界，其中，翻译和测量仅仅是需要被设计的技术问题，而不是需调整的更深层次的世界观“问题”。为鼓励经合组织在未来的测评中认识到这些差异，我们从文化心理学的最新研究中提供一些启示。

KEYWORDS

Well-being; emotion; culture; East Asia; China; Taiwan; Hong Kong; Japan; affect-based pedagogy; OECD Learning Compass 2030

关键词:福祉; 情感; 文化; 东亚; 中国; 台湾; 香港; 日本; 情感教学法; 经合组织学习指南 2030

I. Introduction: PISA 2018 and student well-being

Three years ago we provided a critical look at PISA 2015 focusing on the OECD's turn to non-cognitive dimensions of education under the umbrella of 'student well-being' (Rappleye et al. 2020). We showed that the OECD's purportedly objective measurements were, upon closer analysis, an articulation of particular Western cultural narratives about education. These measures were promoted by powerful centres of global governance, most prominently the OECD, and emerged through the exclusion of non-Western contexts in the formulation of concepts and measurement creation. Our argument was that the OECD's work, in applying these narratives/measurements to Other cultural contexts, gave rise to distorted images of deficiency: the entirety of East Asia came out last in the 2015 Student Well-Being survey. This approach thus blocked from view Other¹ ways of measuring, knowing, being, and educating. In the current piece, we extend and elaborate these earlier critiques by critically examining 'student well-being' in PISA 2018.

Our central argument in the current piece is that, despite some noteworthy critical self-reflection since 2015, the 2018 PISA results still show no recognition of the fundamental tension at the heart of PISA for 'well-being': Is it even possible to capture non-cognitive dimensions of education – 'student well-being' – worldwide with a single measure? As we review below, there is an implicit assumption, found in PISA 2015 and unchanged in PISA 2018, that the entire world shares a similar view of well-being. Universalism is assumed, rather than empirically substantiated. In that sense, the OECD's view of well-being qualifies as ideological, and it is an ideology that runs along familiar lines: a Western worldview as the measure of all things. This implicit ideological universalism pervades all aspects of PISA 2018. That is, the OECD views the world as fundamentally the same, under a thin façade of different languages and cultures, a stance it inherits from Western psychological research. In contrast, we maintain there are multiple worlds, as evidenced by enduring thick differences in languages, meaning, and semantic fields. There are, in fact, myriad Other 'objects' that might be measured, if the OECD could recognise difference.

Our contribution in the current piece is three-fold. On one level, it provides a nuts-and-bolts critique of the startling *lack* of cultural attunement (linguistic, theoretical, etc.) that operates behind the façade of OECD technical precision. We accomplish this not with quantitative analyses, but with an innovative qualitative analytical strategy: comparing PISA 2018 questionnaire translations across different 'economies' that utilise the same written language (China, Hong Kong, Macao, and Taiwan). At the same time, on a deeper second level, the current piece contributes to a critique of the ontology of PISA: the way its ideological universalism hides Others. Specifically, we call attention to how the OECD's measurements begin with an assumption of atomised individuals and individualised emotions. Last, the current piece complements recent, powerful critiques of PISA – many of them emanating from the field of comparative education and from this journal specifically – that show myriad ways the OECD distorts educational policy and practice (e.g. Morris 2015; Auld and Morris 2016; Grey and Morris 2018; Komatsu and Rappleye 2017; Auld, Rappleye, and Morris 2019; Li and Auld 2020). In agreement with and inspired by those critiques, the current piece nevertheless highlights a domain of critique under researched to date: how different languages mediate and confound attempts to 'engineer' universality. Although Addey and Gorur's (2020) recent analyses of PISA and PISA-

D include 'translation' in the title, their use of the term is heavily theoretical, drawn from Science and Technology Studies (STS), and neglects discussion of the translation of PISA into diverse languages. 'Culture' in that account is primarily about reconciling the 'two cultures' (Snow 1959) of the Western world (Latour 1991), rather than about the diversity of cultures, languages, and worldviews present worldwide. Comparativists who can work across multiple languages have a crucial role to play in pointing out the problems of ILSAs that seek universality and claim to measure it (Sjøberg (2015), Bray, Kobakhidze, and Suter (2020)). Indeed, comparativists potentially play a unique role in this domain, as most nationally-based education scholars (i.e. non-comparativists) are limited to working in a single language and/or without comparative perspective on linguistic, translation, and cultural issues.

II. The Learning Compass 2030 and 'Well-Being 2030': the OECD's affective turn in PISA 2018

In 2015 the OECD officially launched the 'Future of Education and Skills 2030' project. In Phase I, the goals have been to develop (a) a conceptual framework for learning and utilise this framework for (b) curriculum redesign. In Phase II – delayed by COVID-19 – the focus will be on (a) the implementation of the redesigned curriculum, and (b) the conceptual framework for the redesign of teaching (OECD 2018a). In 2018, the OECD launched the conceptual framework for Phase I under the title of 'Learning Compass 2030', as visually conveyed in Figure 1(a). The Compass 'defines the knowledge, skills, attitudes, and values that learners need to fulfil their potential and contribute to the well-being of their communities and the planet.' (OECD 2019a). Well-being 2030 is spotlighted as the ultimate 'shared destination' in all the associated visual materials, with the OECD stating that 'even though there may be different visions of the future we want, the well-being of society is a shared destination' (OECD 2019a (video); OECD 2019b). We note that in the associated OECD materials 'society' is always rendered singular,

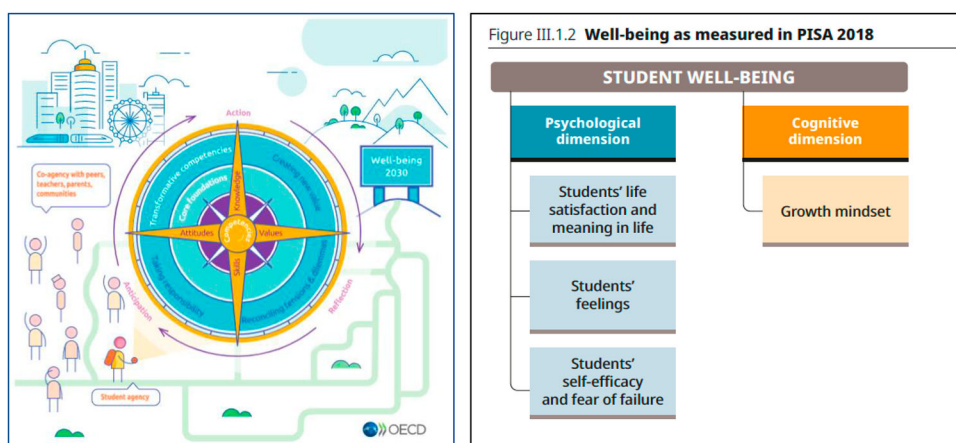


Figure 1. a (left) – OECD's visual representation of the Learning Compass used in promotional materials (OECD 2020), with 'Well-Being 2030' featured as the ultimate destination. b (right) – PISA 2018 Conceptualisation of Student Well-Being (OECD 2019c, 41)

suggesting that there is just one world society, as opposed to various different societies comprising our world. This is despite the fact that the central term ‘well-being’ is difficult to translate, particularly in East Asia, where the term is not colloquially used, as it has now become in English.

The Learning Compass 2030 and Well-being 2030 programme explicitly build on earlier work by the OECD to conceptualise and measure well-being, most prominently the Better Life Index (OECD 2015/2017). As we indicated in our earlier 2020 piece, the larger OECD BLI approach of creating a broad composite index and providing flexibility in interpretation failed to carry over to work done by Education and Skills Secretariat. When student well-being became an explicit focus in PISA 2015, ‘student well-being’ was reduced to a single measure: subjective life satisfaction on a 10 – point Likert scale (Rappeye et al. 2020). OECD analysts then ordinalised these life-satisfaction results in their reporting: all of Northern Europe at the top, all of East Asia at the bottom. Ordinalisation is another clear indication of the OECD assumption that well-being (i.e. life-satisfaction) was understood the same worldwide.

But in the most recent PISA 2018 results, we find a definite shift, both in how the OECD Education and Skills Secretariat conceptualises student well-being and in how they report it. As shown in Figure 1(b), the OECD’s new conceptualisation of student well-being has become significantly more varied: retaining life satisfaction, including meaning in life, students’ feelings, self-efficacy, fear of failure, and growth mindset. The shortcomings of PISA 2015 well-being measures are cited explicitly as the reason for this shift:

... the set of questions included in PISA 2015, and therefore the conclusions that could be drawn from these questions were limited in scope. That might be changed in PISA 2018. A separate well-being questionnaire encompassing questions covering the entire well-being construct could be a building block for international benchmarks in adolescent well-being (OECD 2019c, 260)

To measure this new, multi-dimensional construct, the OECD added many new questions to the PISA 2018 Student Questionnaire. In Figure 2, we summarise the new constructs, their related questions, and the response formats. Here we see the OECD has recognised that the PISA 2015 life-satisfaction measure alone cannot capture, say, eudaemonic well-being. So it has added the notion of ‘meaning in life’. Similarly, the addition of ‘students’ feelings’ suggests recognition of a notion of well-being as comprised of positive and negative affect states. This (re)expansion suggests some openness to change and evolution. Given length restrictions, in the current piece, we focus only on the issue of ‘students’ feelings’ (affect), leaving critiques of the other foci to future papers.

As shown, the OECD proposes to measure students’ feelings according to five positive feelings (happy, lively, proud, joyful, and cheerful) and four negative feelings (scared, miserable, afraid, and sad). Significantly, reporting of the PISA 2018 student emotion results was not initially done in an ordinal manner, perhaps because the OECD had difficulty in ordinalising on a multidimensional construct. In Figure 3, we provide a simple snap-shot of the results from several countries that become our specific focus in the current piece. Canada, UK, and USA are all English-language countries. China, Macao, Hong Kong, and Taiwan are all Chinese-language contexts. These latter jurisdictions share the same written language but with differences in dialect or pronunciation of the spoken language. Given the importance in our later discussion, for ‘lively’, ‘proud’, ‘scared’, and ‘afraid’, we

OECD's Well-Being Dimension	Questions	Response Format
Psychological		
Life Satisfaction (ST016)	Overall, how satisfied are you with your life as a whole these days?	1 (not at all satisfied) – 10 (completely satisfied)
Meaning in Life (ST185)	1. My life has clear meaning or purpose. 2. I have discovered a satisfactory meaning in life. 3. I have a clear sense of what gives meaning to my life.	Strongly Disagree / Disagree/Agree/Strongly Agree
Students' Feelings (ST186)	Thinking about yourself and how you normally feel, how often do you feel... Happy? Scared? Lively? Miserable? Proud? Afraid? Joyful? Sad? Cheerful?	Never/ Rarely/ Sometimes/ Always
Students' Self-Efficacy (ST182)	How much do you agree with the following statements about yourself? 1. I usually manage one way or another. 2. I feel proud that I have accomplished things. 3. I feel that I can handle many things at a time. 4. My belief in myself gets me through hard times. 5. When I'm in a difficult situation, I can usually find my way out of it.	Strongly Disagree/ Disagree/ Agree/ Strongly Agree
Fear of Failure (ST183)	How much do you agree with the following statements? 1. When I am failing, I worry about what others think of me. 2. When I am failing, I am afraid that I might not have enough talent. 3. When I am failing, this makes me doubt my plans for the future.	Strongly Disagree/ Disagree/ Agree/ Strongly Agree
Cognitive		
Growth Mindset (ST184)	How much do you agree with the following statements? 1. Your intelligence is something about you that you can't change very much	Strongly Disagree/ Disagree/ Agree/ Strongly Agree

Figure 2. PISA 2018 Student Well-Being Items, Questions, and response Format (summarised from PISA 2018 Student Questionnaire, English version).

	Happy	Lively	Proud	Joyful	Cheerful	Scared	Miserable	Afraid	Sad				
Canada	93	80	76	86	85	38	41	41	56				
UK	93	83	65	82	84	39	56	66	60				
USA	93	81	78	85	83	45	40	42	63				
China	98	94	自豪 zi hao	81	95	86	恐懼 kongju	59	58	擔心 danshin	87	難過 nanguo	83
Hong Kong	96	85	自豪 zi hao	65	94	89	恐懼 kongju	65	61	擔心 danshin	83	難過 nanguo	77
Japan	91	90		52	90	79		61	46		83		66
Korea	87	82		66	90	87		48	30		69		52
Macao	89	80	得意 de yi	62	86	82	驚恐 jingkong	38	47	害怕 haipa	47	憂傷 youshang	60
Taiwan	94	87	驕傲 jiao ao	43	91	89	驚訝 jingya	26	34	害怕 haipa	45	悲傷 beishang	48
Vietnam	85	81		74	64	91		41	24		44		48

Figure 3. Comparison of PISA 2018 Student Feeling Scores for Select Countries (PISA 2019c, 178).

include the Chinese translations used, both in original Chinese character and romanised format (*hanyu pinyin*). Japan, Korea, and Vietnam, in part by virtue of borrowed Chinese characters, share many words with Chinese, but there are also significant differences in these languages (e.g. 'lively' which we discuss further in the piece).

In the next step, OECD analysts then created an 'Index of Positive Feeling' by combining the PISA 2018 scores from happy, joyful, and cheerful from each participating country. There is no equivalent index for negative feelings, but the report focuses on the percentage of students who reported 'sometimes or always feeling sad' (OECD 2019c, 179). It remains unclear why OECD analysts created a composite index of only three positive emotions, or why they limited negative emotions to sad alone. But these indices appear important for the secondary analyses: the OECD needs these simpler Index of Positive Feelings scores to succinctly correlate various factors (e.g. internet use outside of school), cognitive outcomes (e.g. PISA reading scores), or make a prediction about the factors behind these positive and negative affect states (e.g. competition in schools, bullying, parental emotional support, gender and so on). The PISA 2018 report conveys a strong sense that some important linkages have been discovered. For example, the OECD suggests, 'In about half of the countries and economies that participated in PISA 2018, a positive association was observed between the index of positive feelings and the indices of disciplinary climate and student competition' (184). Similarly for negative affect, 'in every school system, the index of a sense of belonging at school was negatively associated with feeling sad and bullying which is 'positively related to feelings of sadness in about 9 out of 10 school systems' (ibid.).

Behind the OECD's attempts to correlate positive and negative affect to these in-school and out-of-school factors sits an assumption that what is being measured is equivalent. Lacking equivalency, these correlations and cross-national comparisons would not be meaningful. Nowhere in the main 2018 Report do we find a discussion of the issue of equivalency of affect. We note that this silence stands in clear contrast to, say, careful discussion around structural equivalences: how to align grade level (e.g. ISCED coding or occupational equivalency coding schemes such as ISCO and ISEI (OECD 2019c, 216–217). Given this silence, we conclude that the OECD believes either (i) careful translation of the survey materials has ensured equivalency, or (ii) the underlying object being measured is already equivalent. The latter puts less of a burden on survey translators, as one would imagine equivalency already exists within diverse languages. It is these two dimensions that we critically examine in the next section. The reason is that if equivalency cannot be guaranteed then it calls into question all of the secondary analyses the OECD carries out atop its primary data on affect.

III. Problems with 'Student feelings' in PISA 2018, or: is equivalency an engineering problem?

Translation of background questionnaires poses some slightly different and/or additional problems. The aim of these instruments is not, as in the tests, to access competencies. In order to properly translate a questionnaire, the key issue is to be perfectly understood: the questions ... must be as **transparent** as possible and have the **same meaning** in every participating country. (OECD 2018b, 22, bold in original)

In its ambition to measure student affect worldwide, the OECD Education and Skills Secretariat faces the challenge of ensuring equivalency across over 80-plus national versions of PISA. The OECD recognises, as shown in the quote above, the additional difficulties posed in translating the student background questionnaires – on which questions pertaining to students’ feelings are located – as opposed to the main cognitive/competency tests. So how does the OECD go about ensuring equivalency in meaning? How convincingly does it accomplish this?

This process is comprised of 4-steps. First, OECD experts develop an English-language questionnaire, and then this questionnaire is translated into French. Any differences are discussed there, and adjustments are made. In the second step, the OECD sends these questionnaires to National Project Managers (NPM) in each country and asks them to translate them into national languages. Importantly, the OECD *requires* a double-translation approach: two translators independently translate the English questionnaires into the target language, and then a third person reconciles these two translations into a single national version. The OECD emphasises that this third-party ‘reconciler’ plays a crucial role in ensuring equivalency:

In the PISA translation process, the role of the reconciler(s) is essential. The main task of the reconciler will be to ‘merge’ the two independent translations in such a way that the resulting national version is semantically equivalent to the source versions and that the wording is as fluent as possible (OECD 2018b, 7).

The OECD continually stresses that this double-translation method is an advance over back-translation (i.e. where one person translates into the target language, and a different person translates it back into the source language to ensure equivalency).

In the third step, these reconciled national versions are sent back to the OECD, which then submits them for ‘independent’ international verification. As this step becomes important for our argument below, we quote the OECD explanation in full:

As part of the quality control procedures implemented in PISA, all participating countries will be requested to submit their national versions for verification against the English and French source versions by a team of independent verifiers *with native command of the respective PISA languages* and who have been specially appointed and trained by the Contractors. (OECD 2018b, 2, italics added)

The contractor selected to carry out the work for PISA 2018 was cApStaTM, a translation firm headquartered in Brussels, Belgium and with offices in Philadelphia, USA. The firm’s role in PISA 2018 was to perform general quality assurance, but most of all to ensure equivalency in meaning (OECD, 2019c, 364). In the fourth step, the OECD grants approval to the translations, sometimes asking NPMs for further clarification and documentation of any adaptations that were made, as flagged by cApStaTM. The OECD provides a Translation Kit to all national programme teams with detailed instructions about how to carry out Step 2.

How well does this 4-step process ensure the ‘**same meaning**’ in the background questionnaires? To answer this question would require us – or anyone – to have total mastery of most of the world’s major languages. Although we the authors of the current piece are academically fluent in more than 6–7 languages combined, we cannot meet that requirement. But then again, no one can: the inability to occupy an

objective position outside all language to ‘objectively’ evaluate translation is fiction (see Wittgenstein 1997). So instead, we have adopted an innovative methodological approach to evaluate the quality of the OECD/cApStaN™ equivalency exercise: looking at results from independently administered and tested ‘economies’ within the same language. The Chinese language is utilised in mainland China, Macao, Hong Kong, and Taiwan (Chinese Taipei). That is, the written languages of the four contexts of greater China – China, Hong Kong, Macao, and Taiwan – are the same in this language domain², and as PISA includes only written material, should be conducted in a virtually identical fashion. Leaving aside the vast differences between all the world’s languages, we would – assuming the OECD/cApStaN™ equivalency procedures are sound – expect to find equivalency in translation within the same language.

Unfortunately, we are unable to find said equivalencies. Recalling Figure 3, we were initially curious about the vast differentials on ‘proud’, as ‘pride’ is frequently a difficult word in East Asian languages, rarely carrying the positive valence it does in Western contexts. We find that for the Anglo-American countries (Canada, UK, USA) the figures are roughly similar, but for East Asia, they range from extremely high (81 for China) to rather low (43 for Taiwan). Taking the figures as objective, the obvious conclusion one would draw is that Chinese youth are twice as proud as Taiwanese. However, upon closer inspection of the terms, we found that three different words were utilised in these four countries. In China and Hong Kong, the term was *zihao* (自豪), which carries a positive valence and is roughly equivalent to ‘feeling one did a good job’ in English. Meanwhile in Macao, the term was *deyi* (得意), which can have a positive or negative valence, and might be roughly equivalent to ‘proudly declared that he had completed his task’. But in Taiwan, the term was *jiaobao* (驕傲), which almost always carries a negative valence, and is close to the English term ‘arrogance’. The differences in the PISA 2018 score distributions correlate tightly with the valence of the terms themselves. This strongly suggests that what is being measured is not ‘students’ feelings’ but instead cultural norms about what emotions should be valued.

We find the same problems on the negative affect side. For the term ‘afraid’, we have a vast range of scores from China (87) and Hong Kong (83) to Macao (47) to Taiwan (45). For the China and Hong Kong tests, the term used was *danshin* (擔心), roughly equivalent to the English sense of ‘I’m afraid I won’t be able to remember that maths formula my teacher taught me yesterday’. Yet for the Macao and Taiwan tests, the term was *haipa* (害怕), roughly equivalent to the English ‘I’m afraid of that ugly stray dog that always comes up to the school gate around lunch time and barks’. In an American English-language context, we might say *danshin* is ‘worry’ and *haipa* is ‘scared’. Undoubtedly, these terms are asking about different affective states.

And what about ‘sad’, the one negative affect state given particular weight in the OECD’s Index of Negative Feeling? Here too we find different words used to translate even within the same Chinese language community, with score correlations tightly matching those translations. Scores in China (83) and Hong Kong (77) are very different than Macao (60) and, in particular, Taiwan (48). Here too we find that in China and Hong Kong, the term used was *nanguo* (難過), in Macao, it was *youshang* (憂傷), and in Taiwan, it was *beishang* (悲傷). According to Zhang (2014) who carefully analyses the differences in expressions of ‘sadness’ in Chinese and English, *nanguo* does not match the simple, generic ‘unhappy’ quality of English because it emphasises the cause

(either resulting from an unexpected result or someone's actions). It is probably closer to 'disappointed', yet a different term *shiwang* (失望) overlaps and complicates things here. *Beishang* is closer to sorrow and grief, but carries a notion of altruistic engagement lacking in the English terms, maybe something like 'I feel (sad) for that homeless person'. As such, people are encouraged to cultivate this 'sad' state in many Chinese contexts. Meanwhile, *youshang* is closer to *nanguo* but is 'more introverted, and less negative', as in the English notion of 'I am feeling a bit down today'. Even within English, we can recognise these nuances. How can OECD/ cApStaNTM convince us that they are measuring the same affect state worldwide when they are not even measuring the same affect state within the same Chinese language? What happened?³

To answer this question, we need to look closer at the contractor cApStaNTM. Under the catch-phrase, 'We Engineer Equivalence', the firm's website suggests that its team of roughly 50 multilingual experts, aided by the latest machine translation technologies, allows the firm to deliver 'premium translations fit for purpose'. They have wide experience in projects ranging from opinion polls to social/attitudinal surveys to translation of the work of international organisations. Indeed, they have been the preferred contractor for a wide range of OECD work. Yet, the most immediate problem is that they had only one employee who had any proficiency in any East Asian language in 2017, the time when PISA 2018 questionnaires were being verified. cApStaNTM capacity is overwhelmingly in European languages. This is despite the OECD's own claim that the 'independent verifiers' would have '*native command of the respective PISA languages*', ostensibly across the 80-plus national language versions of PISA. Even if this lead contractor asked for sub-contracting help (we again found no evidence that they did), the OECD's insistence on 'same meaning' would, in any case, be impossible to meet, as it requires knowledge of equivalency *across* different languages. There is simply no way around this. In a sense, all of this is just an unfortunate lack of diligence – for lack of a better term – by the OECD: to (i) award the contract to a firm without sufficient global language capabilities, and (ii) to not have run even a basic check if the terms were similar in the same language (one can do this even without deep knowledge of Chinese).

But we wish to argue that this, in fact, goes beyond lack of diligence: it reveals deeper problems for the OECD's vaunted double-translation approach outlined above. Stepping back for a moment to view the entire process, without cApStaNTM 'experts' there to ensure equivalence, there is nothing to prevent two different NPM from translating the English term 'happy' or 'sad' to any number of possible local nuance equivalents. None of the translations reviewed above are 'wrong', they are just very different takes on what it means to be 'proud' or 'sad' in school. At this point, the double-translation helps ensure that within a given language, there is clarity on what is being measured. But without the capacity of the 'reconciler' to check whether these terms match *across* languages globally, there is no way to ascertain if these terms carry the '**same meaning**'. The inability of the OECD/contractor to detect different terms even *within* the same language strongly suggests they were unable to detect differences *across* languages. Here, equivalency is lost in translation.

In fact, any experienced linguist would likely tell you that a first assumption that there are simple equivalents across all languages is difficult to defend. For linguists and those of us who speak multiple languages, this is a rather obvious point. But what is so striking about the OECD analyses leading up to PISA 2018 is just how little this point is

understood. Take, for example, the OECD's 2018 self-reflective claim that they first came to recognise differences in languages by using both an English and French source document:

Since the inception of PISA, it has been a requirement in the PISA Terms of Reference that the international contractor should produce an international French source version of the data collection instruments. Experience has shown that some issues do not become apparent until there is an attempt to translate the instruments into a second language. As in previous PISA survey administrations, the English-to-French translation process proved to be very effective in detecting issues not detected or overlooked by the item writers, and in anticipating potential problems for translation into other languages. (OECD 2015, 2)

Here, the OECD admits that even between English and French divergences in meaning are evident. If this is the case even for two languages that arose in close proximity and similar historical, religious, philosophical, and intellectual contexts, how much more different would it be for languages on the other side of the world, say, Chinese and Japanese? And shouldn't we expect even greater complexity and nuance when words deal with abstract concepts, including human emotion (affect)? If there was simple equivalency, why would it be so hard to learn foreign languages? Here we find that the earlier ideological universalism is found right here in the very definition of what languages are: merely culture, context-free utterances humans make about an objective world. That is the view of the PISA item developers, OECD analysts, and the contractors they employ. It is on the basis of such a view that the core issue of equivalency – **same meaning** – is seen as merely an 'engineering' problem (cApStaN™) and a technical-procedural issue (OECD).

As further evidence that this is OECD's view, let us return briefly to the examine the test items measuring 'students' feelings' reviewed in [Figure 2](#) above. What we notice immediately is that terms are given without context. There is no example sentence or vignette to help student's contextualise what is being asked. As we have done in our analysis above, adding sentences would have helped students better understand nuance, although even that would not get around the problem: vignettes also contain cultural foregrounding. But the OECD/cApStaN™ de-contextualised view of language leads to a de-contextualised question format. Second, and more important for our later argument, the affect states asked by the OECD/cApStaN™ are usually associated with *individualised* emotions. That is, these are the words that assume *individuals* usually experience: 'I am happy', 'I am sad', and so on. What is missing is another class of affect words that involve other people. In English, we have words like 'indebted', 'empathetic', 'compassionate', 'dependent', 'guilty', or 'ashamed' that explicitly represent emotions between people. The first three usually carry a positive valence, the latter three a negative valence. But whether positive or negative, these are emotions that we recognise too, hence English also has a word for them. Why has the OECD disregarded those affective states in its assessments? What implicit model of the human is the OECD valorising in its Well-being 2030 agenda?

IV. An-Other view of feelings: self, emotion, (well-)being, and affect-based pedagogies

We have thus far reviewed the policy context – the Well-being 2030 agenda – that gave rise to the OECD's attempt to measure students' feelings in PISA 2018, and shown the problems

that confound ensuring ‘**shared meaning**’ therein. Our focus so far has been limited to the internal validity of the OECD’s results, with our critique focused on deconstructing the process to reveal the OECD/cApStaN™ core assumptions. We now turn briefly to extend the critique in more constructive, expansive ways: suggesting an-Other way of thinking about emotion, its connection to well-being, and its role in education.

The OECD’s PISA 2018 frameworks for well-being and the attendant measurements, despite being more nuanced than PISA 2015, still derive wholly from Western psychology. For example, life-satisfaction scores are derived from the Cantril Ladder (Cantril 1965; Rappleye et al. 2020) and the OECD’s PISA 2018 student feeling categories are transposed, in truncated form, from Watson et al.’s (1988) Positive and Negative Affect Schedule (PANAS). Moreover, the entire PISA 2018 student well-being construct is a composite of mainstream Western psychological concepts: affect (hedonic happiness), meaning in life (eudaemonic happiness), self-efficacy (Bandura, Freeman, and Lightsey 1999), and – most recently – growth mindset (Dweck 1999). Without exception, the entirety of the report’s scholarly references is from Western psychology. What is missing, despite occasional rhetorical genuflection to ‘culture’, is insights into the relationship between culture and emotion, on one hand, and emotion and education on the other.

In a seminal piece entitled *Culture and the Self: Implications for Cognition, Emotion, and Motivation* (1991), Markus and Kitayama argued that emotional experience is derivative of a particular view of self. In an independent mode of self-construal (hereafter: independent self), emotions are ‘ego-focused’, whereas in an interdependent mode of self-construal (hereafter: interdependent self), emotions are ‘other-focused’ (235). Their critique was directed at psychologists who subscribed to the view that emotion was ‘a universal set of largely prewired internal processes of self-maintenance and self-regulation’ (ibid.). Markus and Kitayama instead argued instead for emotional landscapes that both reflected and reinforced particular views of self, presenting considerable empirical evidence that Japanese and Chinese, as compared with Americans, had a more complex set and valuation of other-focused emotions. In later work, they offered a simple visual figure to illustrate (Kitayama and Markus 2000), as redrawn in Figure 4.

For independent selves, feelings belong to an individual, and are experienced like ‘personal property’. But for interdependent selves, feelings are an intersubjective state and are experienced as the ‘property’ of the interpersonal atmosphere itself. Uchida et al. (2009) usefully defined this difference as viewing emotions as ‘within’ or ‘between people’. These phrases succinctly captured a large body of theoretical and empirical work showing how different cultures view the seat of emotion differently (Uchida, Norasakkunkit, and Kitayama 2004; see also Uchida and Oishi 2016). Mesquita (2022) has recently offered a magisterial review, with more examples drawn from outside East Asia and within sub-populations in Western societies (immigrants, women, etc.), also selecting this language of ‘between’ for the title: *Between Us: How Cultures Create Emotions*. This reminds us that these dynamics are not merely a West vs. East issue, but instead that the mainstream cultures of East Asia may foreground these relational emotions to a greater extent.

From this perspective, it is clear that the OECD is working with an independent notion of self and the attendant notion of ‘within’ emotional landscapes. Indeed, in the OECD’s Definition and Selection of Key Competencies (2005), a key document laying out the conceptual constructs on which PISA assessments were to focus, we can find an explicit emphasis on autonomy and rejection of (inter)dependence:

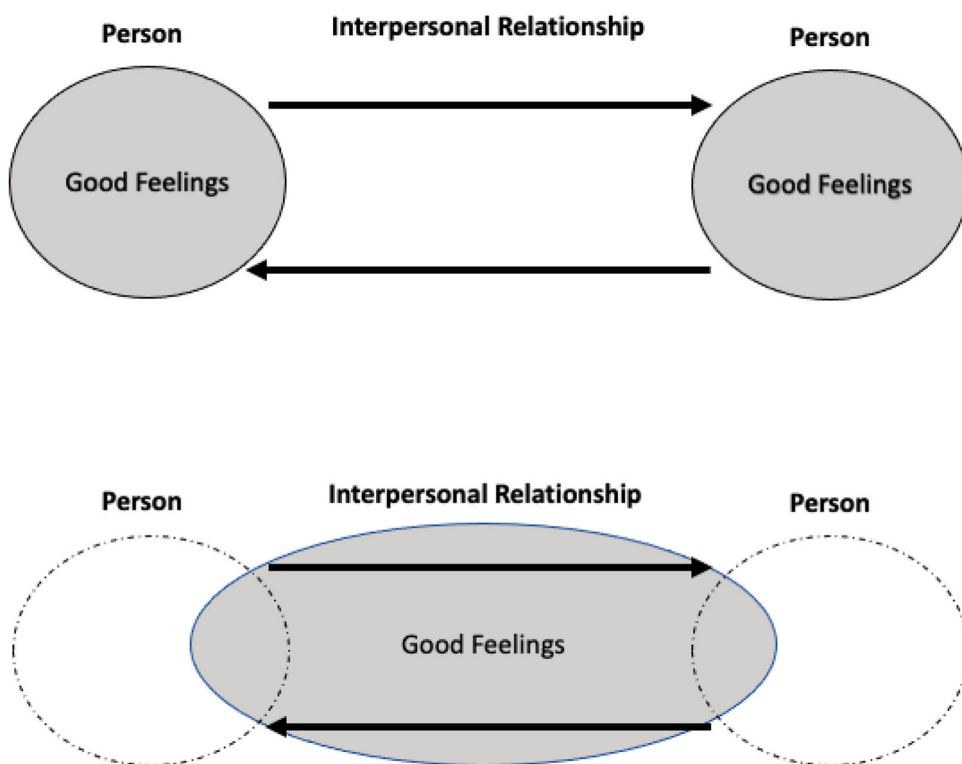


Figure 4. Different views of Emotion: ‘within’ people (above) and ‘between’ people (below) (redrawn from Kitayama and Markus 2000, 147).

Key competencies assume a mental autonomy, which involves an active and reflective approach to life. They call not only for abstract thinking and self-reflection, but also for distancing oneself from the socializing process ... to be the originator of one’s own positions ... this means being self-initiating, self-correcting, and self-evaluating rather than dependent on others to frame the problems, initiate adjustments, or determine whether things are going acceptably well. (Rychen and Salganik 2000, 13)

This ‘mental autonomy’ presupposes a particular type of emotion: a cool attitude towards others, most preferably a critical one (‘distance’). The OECD goes on to suggest that gaining distance from relationships is the key to ‘maturity’: ‘the fact that people live by internalised social norms and in the context of relationships to others is not incompatible with autonomy. Scrutinising and reflecting on these norms and relationships is part of individual growth and the maturation of identity.’ (Rychen and Salganik 2000, 11) The OECD is explicit that ‘autonomy of individuals is a key feature of modernity, democracy, and individualism’ (ibid.), thus setting it up as a normative model that should be embraced by all. Here the long-standing Western emotional themes of autonomy (i.e. free will, Augustine), rationality (Kant), and scepticism (Descartes) have been smuggled in, celebrated as a universal cultural recipe to bring other countries in line with the purportedly world-leading achievements of the modern West. The OECD does not appear to be aware of this. Instead, the organisation bases its work, wholly unreflectively, on the Western mainstream psychological and sociological models that themselves purport to

be universal and world-leading. But we must recognise, that if these very WEIRD (Henrich et al., 2010) definitions of ‘world leading’ were shifted to say, social or environmental sustainability, then those same cultural recipes would might well be an object of critique (Komatsu, Rappleye, and Silova 2021; see also Jackson, 2021).

Another angle provided by cultural psychology that reveals the inherent Western-ness of the PISA 2018 exercise is with the notion of ‘ideal affect.’ Tsai (2007) has shown, building on the work of interdependent and independent selves, that East Asian contexts prefer high arousal positive states like excitement, elation, and enthusiasm less than the US and other Western contexts, and value low-arousal affect states, i.e. feelings of calm, attunement, and/or quiescence more.⁴ In PISA 2018, we do not find questions about states like ‘calm’, which would help us to recognise the prevalence of low arousal emotions in classrooms worldwide. In contrast, PISA 2018 does ask about ‘lively’ which, in English usually presupposed as a high-arousal state. In the Japanese translation, this becomes *genki* (元気), and in the Chinese versions, it is *hupode* (活潑的) or *chongmanhouli* (充滿活力), for Taiwan/Macao and China/Hong Kong, respectively. But here again, we get lost in translation. In Japanese someone can be *genki* without necessarily being ‘lively’, i.e. calm forms of *genki* are abundant. The term – one ubiquitous in everyday Japanese – means one’s *ki* has returned to its root, rather than being overextended. *Genki* is more about psycho-somatic balance and health, rather than about the ‘active and outgoing’ (Oxford English Dictionary) meaning of the term ‘lively’ in English. As shown in Figure 3, nearly all East Asia countries show results higher than their Anglo-American peers. Yet, limited by the OECD’s suggesting that this is ‘active’ our recognition of these East Asian low-arousal, balanced states of ‘liveliness’ would elude our detection. Our point here is that the OECD would do well to include items that measure a low-arousal state found in different cultures.

By understanding how different forms of self-construal create different emotional landscapes, it becomes easier to imagine the diversity of well-being worldwide. Instead of the OECD’s model of acting autonomously and prioritising independent emotions as a means of building a separate identity, an Other model foregrounded in East Asia context(s) would be acting to fit in, and prioritising attunement of one’s emotions to others. This East Asian Other model would put more emphasis on sensing what others are feeling, and managing personal thoughts and staying calm, to avoid putting an undue burden on members of the group to respond. In our previous piece, we included a simple table to highlight the key differences (see Rappleye et al. 2020), one that can now be extended to include the valorised emotions therein: for independent selves, self-esteem, pride, and enthusiasm, and for interdependent selves, dependence, empathy, and quiescence (Figure 5). Undoubtedly, Other models exist beyond East Asia, of course, and our goal is to contribute to a much wider recognition of diverse forms of global well-being.

Turning to pedagogy, the implications of these differences are profound. In the home environment, an OECD model of well-being tends towards the elevation of ‘self-esteem’, whereas an interdependent view in Taiwan leads to a focus on indebtedness to parents, grandparents, and teachers (Miller and Cho 2017). At the early childhood stage, in Japan, an interdependent view leads to small, but highly significant changes in classroom discourses: an assigning of emotional loneliness to items without companions (e.g. an uneaten carrot on a lunch tray; a lone sock) (Hayashi, Karasawa, and Tobin 2009) or

Well-being and Emotion for Independent and Interdependent Selves		
Well-being involves...		
Independent self	1.	Acting Autonomously
	2.	Creating a separate personal identity, self-focused
	3.	Achievement, striving to be better than others, unique
	4.	Orienting to the future
	5.	Being optimistic, expressing positive thoughts, feelings
	6.	Resisting influence from others
	7.	Emotions: self-esteem, pride, enthusiasm
Interdependent self	1.	Acting to fit in, being part of the community
	2.	Attuning to relations with close others, other-focused
	3.	Recognising similarity with others, a sense of common fate
	4.	Sensing expectations of others, fulfilling responsibilities
	5.	Working to improve the self and meet standards
	6.	Managing personal thoughts and feelings, staying calm
	7.	Emotions: dependence, empathy, quiescence

Figure 5. Well-being for independent and interdependent selves, with prioritised emotions

appeals to empathy, as opposed to abstract rules, as solution to conflict (Shimuzu 1999). In the elementary grades, an interdependent, ‘between us’ view leads to organisational preferences for small groups, as opposed to individual choice, and the development of an emotionally-rooted ‘coordinated communalism’ (Tsuneyoshi 2000). At the middle school stage, the OECD independent, ‘within us’ view finds its manifestations in American practices of displaying strongly detached emotions (Jung 2007), whereas an interdependent view in Korea leads to an emphasis on ‘affective relationality’ (Jung 2021). At all levels of the Japanese system, the terms *omoiyari* (thinking of others first) and *kizuna* (connection) are ubiquitous (Cave 2016). Even teacher training practices in Japan are centred on ‘fostering empathy’ and emotional intensity over rational autonomy (Shimahara & Sakai, 1995, 169). Arguably, emotional autonomy and detachment in these contexts become as sign of *immaturity*. In other words, ‘between people’ emotions are not peripheral to the educational contexts of East Asia. Instead, ‘between us’ emotional landscapes are the very bedrock of pedagogical practice there.⁵ And, we must recognise that these affect-based pedagogies underpin East Asia’s consistently high levels of academic achievement world-wide, repeatedly confirmed since comparative student achievement assessments began 50 years ago.

Unfortunately, rather than making these differences ‘as **transparent** as possible’ PISA obfuscates all of this. It does this first by, as reviewed above in the Chinese language case, misrepresenting emotional equivalency. At a deeper level still, by removing – from the outset – a much wider array of interdependent, other-focused emotions from view, it blinds us to these Other affective landscapes. That is, by simply transposing the emotional categories from mainstream Western psychology, which remains – in turn – founded on an independent view of self, the PISA affective turn not just misses the Other, but actually blocks it from view. And without being able to see these Other emotions, those outside the region are unlikely to recognise the key role these play in, in this case, East Asian teaching and learning. When we recall that the Learning Compass and PISA 2018 are simply Phase I of a longer project aimed at curriculum design and (re)training teachers

between now and 2030, this becomes all the more troubling: this distorting OECD view may soon become the basis for attempts to retrain teachers and educating students worldwide. Can we really expect OECD-led (re)education into Western emotional landscapes to lead to educational improvement worldwide?

V. Conclusion: equivalency as an other-focused, attunement problem

Herein we have provided a critical look at how the OECD operationalises the Well-Being 2030 Agenda, focusing on PISA 2018s measurement of students feelings, arguing that due to lack of cultural attunement, the OECD's work fails to achieve the **shared meaning** it seeks. More disappointingly – and here returning to the more philosophical vocabulary we used at the outset and combining it with insights from cultural psychology – this ideological universalism removes from view a whole class of emotions deriving from a more interdependent view of self and world. Relational affect is eminently 'real' for many worldwide, despite the OECD's hope for greater individual, detached autonomy (Cartesianism). In claiming to objectively measure, compare, and record positive and negative effects worldwide, but doing so only from Western psychological frameworks, the OECD actually blocks from view distinctive features of Other worlds. Even the OECD's implicit contrast between two discontinuous states, positive and negative, is cultural: for much of East Asia, the goal is to balance between the two (Sims et al. 2015; Uchida and Rappleye 2023). If secondary analyses of this OECD data simply view these PISA 2018 numbers as objective, and then proceeds to follow the correlations (*competition leads to more positive feeling*) and implications (*an overwhelming number of Chinese feel afraid in their schools*), this Other world slips further from view. Instead of the OECD's assurances they they are taking us to a 'shared destination' (OECD 2019b), Well-Being 2030 looks rather like another retethering of our global future to the cultural traditions of the West.

To be clear, we are not opposed to greater scholarly attention paid to students' feelings. We should work to gain a richer understanding of the lives of students worldwide and how they learn. What we are opposed to is the *first assumption* of equivalence, the lack of attention to Other emotional landscapes, and – most importantly – how the OECD thinks we will achieve equivalence. Instead of equivalence as a technical engineering problem, we propose to view it as an attunement problem: without the ability to see Other views, it would be impossible to begin to arrive at shared meaning. With this move, an engineering mode of engagement that never calls into question the first assumptions of the analysis is replaced by an Other-focused one. Emotional understanding and enhancement of well-being will be fostered through the *proliferation* of different vocabularies, techniques, teachings, and approaches, rather than from the 'depauperate' (Plumwood 1993), reductive move of the OECD. Disappointingly, the PISA 2018 results report concludes with a gesture to future assessments: 'new questions might also be developed through the psychological concept of flourishing (Seligman 2012)'. From an attunement perspective, this approach is wholly misguided: new questions should not be developed through the latest fads in American psychology (e.g. Seligman's Positive Psychology), but through dialogue with Other approaches to emotion that already exist all over the world, and with reference to clear manifestation in educational practices. Unfortunately we can already see that the same issues will arise in the PISA 2022 results: the PISA 2021/2022 *Translation and Adaptation Guidelines* (already online) show the same assumptions, the

same contractor, and the PISA 2022 well-being questionnaire shows no inclusion of 'between us' emotions (OECD 2021). Continuing to develop a Learning Compass 2030 that orients itself solely on Western psychological models only disorients us.

One final note on the wider importance of our critique. For us, the issues involved here are not limited to scholarly accuracy or representational justice. Both of these are important but tend to miss the wider cultural challenges that confront our contemporary world. Recall that the OECD literature surrounding Well-Being 2030 explicitly mentions the 'well-being of the planet', implicitly gesturing towards the ways that education needs to be configured in the face of the climate crisis (see also OECD 2022). However, the OECD's only imaginable solution are, predictably, the sorts of self-construal, social and economic arrangements, epistemologies, and educational models that historically powered Western modernity (Komatsu, Rappleye, and Silova 2021). As such, the Well-Being 2030 vision becomes, indeed, the educating of 'happy human capital' (Kim 2022). *How can the same modes of being that brought us to this point be the solution?* In contrast, our recent research has shown that the independent selves that are the cornerstone of Western modernity may be a major obstacle to environmental sustainability (Komatsu, Rappleye, and Silova 2019; Uchida and Rappleye 2023). Educationally, the focus on independent selves – 'autonomy' – reinforces forms of pedagogy such as Student-Centered Learning (SCL) and a focus on students' feeling good about themselves, above all else. Yet, those countries with the highest levels of SCL and the highest levels of students' self-esteem also have the lowest levels of social and environmental sustainability (Komatsu, Rappleye, and Silova 2021). If we insist on continuing to measure, shouldn't the focus be on sampling that which deepens our understanding of alternatives? (Silova, Rappleye, and Komatsu 2019; Tsai, 2023). To the degree that PISA removes Other potential models – models that serve as reference points for learning our way out of the climate crisis – our on-going critique of the OECD's agenda takes on a far deeper significance.

Notes

1. We capitalise the term Other throughout the current piece to signify that which manifests an alternative worldview. That is, Other indicates something not fully visible from within a given cultural horizon. This is opposed to rendering the term 'other' in non-capitalised form, which would signify a difference within an already known horizon.
2. We acknowledge that small differences exist in slang, cultural references, political language, and other domains, but none of these would impact the findings on affect reported here.
3. Some readers might wonder if Differential Item Function (DIF) could detect these differences (see Takayama 2018). But DIF doesn't pick up translation issues that are our focus here, and could not be applied to descriptive Likert indices asking students to describe their frequency of being 'happy' (always, sometimes, rarely, and never).
4. Although recent studies such as Bencharit et al., 2018 complicate the picture to some extent, showing changes in recent years. That European and European-Americans are showing increased preference for LAP states is another reason the OECD should sample those emotions.
5. As such, the philosophical resources for developing an alternative form of well-being from the Chinese and/or East Asia context are abundant (You 2022). Indeed, emotions are so central to East Asian philosophy, that many consider emotion as ontological, particular in Neo-Confucian China (see Marks and Ames, 1994; Chen, 2014).

Acknowledgements

The authors would like to extend thanks to You Yun (East China Normal University) who helped us further understand linguistic nuance in Chinese and contributed to our thinking on these themes. Her recent work is highly complementary, and helps theorize the differences obfuscated by the recent OECD affective turn (see You, 2022; You, *Forthcoming*).

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Jeremy Rappleye is Professor at the University of Hong Kong, having spent the past 12 years at Kyoto University. He spent 2021–2022 at Stanford University working with Hazel Markus and other leading cultural psychologists there.

Hikaru Komatsu is Associate Professor at National Taiwan University. After spending more than 15 years in environmental science, he realised the importance of culture for achieving sustainability. He is currently examining how culture is related to sustainability and how culture can be rearticulated for sustainability through education.

Yukiko Uchida is Professor at Kyoto University, Institute for the Future of Human Society. From 2019–2020, she was a Fellow at Stanford University, CASBS. Upon receiving her PhD in social psychology from Kyoto University in 2003, she started her academic career as a visiting researcher at the University of Michigan and Stanford University.

Jeanne L. Tsai is Professor and Vice Chair of Psychology in the Department of Psychology at Stanford University and Director of the Stanford Culture and Emotion Lab. Her research examines the cultural shaping of emotion and its implications for communication, health, decision-making, person perception, and resource sharing in a variety of applied settings.

Hazel Markus is Professor at Stanford University and co-Director of the new ‘do tank’ called Social Psychological Answers to Real-world Questions (SPARQ).

ORCID

Jeremy Rappleye  <http://orcid.org/0000-0002-0717-8253>

Hikaru Komatsu  <http://orcid.org/0000-0003-1195-1648>

Yukiko Uchida  <http://orcid.org/0000-0002-8336-2423>

Jeanne Tsai  <http://orcid.org/0000-0003-4150-8268>

Hazel Markus  <http://orcid.org/0000-0002-1390-4389>

References

- Addey, C., and R. Gorur. 2020. “Translating PISA, Translating the World.” *Comparative Education* 56 (4): 547–564. <https://doi.org/10.1080/03050068.2020.1771873>.
- Auld, E., and P. Morris. 2016. “PISA, Policy and Persuasion: Translating Complex Conditions Into Education ‘Best Practice’.” *Comparative Education* 52 (2): 202–229. <https://doi.org/10.1080/03050068.2016.1143278>.
- Auld, E., J. Rappleye, and P. Morris. 2019. “PISA for Development: How the OECD and World Bank Shaped Education Governance Post-2015.” *Comparative Education* 55 (2): 197–219. <https://doi.org/10.1080/03050068.2018.1538635>.
- Bandura, A., W. Freeman, and R. Lightsey. 1999. “Self-Efficacy: The Exercise of Control.” *Journal of Cognitive Psychotherapy* 13 (2): 158–166. <https://doi.org/10.1891/0889-8391.13.2.158>.

- Bencharit, L. Z., Y. W. Ho, H. H. Fung, D. Y. Yeung, N. M. Stephens, R. Romero-Canyas, and J. L. Tsai. 2019. "Should Job Applicants be Excited or Calm? The Role of Culture and Ideal Affect in Employment Settings." *Emotion* 19 (3): 377–401. <https://doi.org/10.1037/emo0000444>
- Bray, M., N. Kobakhidze, and L. Suter. 2020. "The Challenges of Measuring Outside-School-Time Educational Activities: Experiences and Lessons from the Programme for International Student Assessment." *Comparative Education* 64 (1) <https://doi.org/10.1086/706776>.
- Cantril, H. 1965. *The Pattern of Human Concerns*. New Brunswick, NJ: Rutgers University Press.
- Cave, P. 2016. *Schooling Selves: Autonomy, Interdependence, and Reform in Japanese Junior High Education*. Chicago, IL: University of Chicago Press.
- Chen, Lai (陳來)(2014). 2014. *Renxue bentilun 仁學本體論 (The Ontology of Ren)*. Beijing: Sanlian Shudian.
- Dweck, C. 1999. *Self-Theories: Their Role in Motivation, Personality, and Development*. New York: Psychology Press.
- Grey, S., and P. Morris. 2018. "PISA: Multiple 'Truths' and Mediatized Global Governance." *Comparative Education* 54 (2): 109–131. <https://doi.org/10.1080/03050068.2018.1425243>.
- Hayashi, A., M. Karasawa, and J. Tobin. 2009. "The Japanese Preschool's Pedagogy of Feeling: Cultural Strategies for Supporting Young Children's Emotional Development." *Ethos (Berkeley, Calif)* 37 (1): 32–49. <https://doi.org/10.1111/j.1548-1352.2009.01030.x>.
- Henrich, J., S. J. Heine, and A. Norenzayan. 2010. "The Weirdest People in the World?." *Behavioral and Brain Sciences*, 33 (2-3): 61–83.
- Jackson, L. 2021. *Beyond Virtue: The Politics of Educating Emotions*. Cambridge: Cambridge University Press.
- Jung, H. J. 2007. *Learning to Be an Individual: Emotion and Person in an American Junior High School*. New York: Peter Lang.
- Jung, H. J. 2021. "Individualization, Peer Learning, and The Cultural Model of Sociality in South Korean Education: The Case of an Educational Metaphor." *Ethos (Berkeley, Calif)* 49 (1): 53–71. <https://doi.org/10.1111/etho.12295>.
- Kim, M. J. 2022. "Happiness, Politics, and Education Reform in South Korea: Building 'Happy Human Capital' for the Future." *Comparative Education (Online First)*, <https://doi.org/10.1080/03050068.2022.2147633>.
- Kitayama, S., and H. Markus. 2000. "The Pursuit of Happiness and the Realization of Sympathy: Cultural Patterns of Self, Social Relations, and Well-Being." In *Culture and Subjective Well-Being*, edited by E. Diener, and E. M. Suh, 113–161. Cambridge, MA: MIT Press.
- Komatsu, H., and J. Rappleye. 2017. "A New Global Policy Regime Founded on Invalid Statistics? Hanushek, Woessmann, PISA, and Economic Growth." *Comparative Education* 53 (2): 166–191. <https://doi.org/10.1080/03050068.2017.1300008>.
- Komatsu, H., J. Rappleye, and I. Silova. 2019. "Culture and the Independent Self: Obstacles to Environmental Sustainability?" *Anthropocene* 26: 100198. <https://doi.org/10.1016/j.ancene.2019.100198>.
- Komatsu, H., J. Rappleye, and I. Silova. 2021. "Student-Centered Learning and Sustainability: Solution or Problem?" *Comparative Education Review* 65 (1): 6–33. <https://doi.org/10.1086/711829>.
- Latour, B. 1991. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.
- Li, X., and E. Auld. 2020. "A Historical Perspective on the OECD's 'Humanitarian Turn': PISA for Development and the Learning Framework 2030." *Comparative Education* 56 (4): 503–521. <https://doi.org/10.1080/03050068.2020.1781397>.
- Marks, J., and R. Ames. 1994. *Emotions in Asian Thought: A Dialogue in Comparative Philosophy*. New York: State University of New York Press.
- Markus, H., and S. Kitayama. 1991. "Culture and the Self: Implications for Cognition, Emotion, and Motivation." *Psychological Review* 98 (2): 224–253. <https://doi.org/10.1037/0033-295X.98.2.224>.
- Mesquita, B. 2022. *Between Us: How Cultures Create Emotions*. New York: W.W. Norton.
- Miller, P., and G. Cho. 2017. *Self-Esteem in Time and Place: How American Families Imagine, Enact, and Personalize a Cultural Ideal*. Oxford: Oxford University Press.

- Morris, P. 2015. "Comparative Education, PISA, Politics and Educational Reform: A Cautionary Note." *Compare: A Journal of Comparative and International Education* 45 (3): 470–474. <https://doi.org/10.1080/03057925.2015.1027510>.
- OECD. 2005. *The Definition and Selection of Key Competencies: Executive Summary*. Paris: OECD. <https://www.oecd.org/pisa/35070367.pdf>
- OECD. 2015. *PISA 2015 Technical Report* (Chapter 5: Translation and Verification of Survey Material). <https://www.oecd.org/pisa/data/2015-technical-report/PISA-2015-Technical-Report-Chapter-5-Translation.pdf>.
- OECD. 2017. *OECD Better Life Index (2017 Version)*. Paris: OECD.
- OECD. 2018a. *OECD Future of Education and Skills 2030 Project*. Paris: OECD. <https://www.oecd.org/education/2030-project/about/>.
- OECD. 2018b. "PISA 2018 Translation and Adoption Guidelines." Accessed October 1, 2022. <https://www.oecd.org/pisa/pisaproducts/PISA-2018-TRANSLATION-AND-ADAPTATION-GUIDELINES.pdf>.
- OECD. 2019a. "The OECD Learning Compass 2030." Accessed October 1, 2022. <https://www.oecd.org/education/2030-project/teaching-and-learning/learning/>.
- OECD. 2019b. "In Brief: OECD Learning Compass 2030." Accessed October 1, 2022. https://www.oecd.org/education/2030-project/teaching-and-learning/learning/learning-compass-2030/in_brief_Learning_Compass.pdf.
- OECD. 2019c. *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*. Paris: OECD. <https://www.oecd.org/education/pisa-2018-results-volume-iii-acd78851-en.htm>.
- OECD. 2020. "The OECD Learning Compass 2030." Accessed October 1, 2022. <https://www.oecd.org/education/2030-project/teaching-and-learning/learning/>.
- OECD. 2021. *PISA 2021 Translation and Adoption Guidelines*. Paris: OECD. <https://www.oecd.org/pisa/pisaproducts/PISA-2022-Translation-and-Adaptation-Guidelines.pdf>.
- OECD. 2022. *Are Students Ready to Take on Environmental Challenges?*. Paris: PISA, OECD Publishing. <https://doi.org/10.1787/8abe655c-en>.
- Plumwood, V. 1993. *Feminism and the Mastery of Nature*. London and New York: Routledge.
- Rapplee, J., H. Komatsu, Y. Uchida, K. Krys, and H. Markus. 2020. "'Better Policies for Better Lives?': Constructive Critique of the OECD's (mis)Measure of Student Well-Being." *Journal of Education Policy* 35 (2): 258–282. <https://doi.org/10.1080/02680939.2019.1576923>.
- Rychen, D. S., and L. H. Salganik. 2000. *Definition and Selection of Key Competencies – A Contribution of the OECD Program Definition and Selection of Competencies: Theoretical and Conceptual Foundations*. Paris: OECD. <http://deseco.ch/bfs/deseco/en/index/02.parsys.69356.downloadList.26477.DownloadFile.tmp/2000.desecocontrib.inesg.a.pdf>.
- Seligman, M. 2012. *Flourish: A Visionary New Understanding of Happiness and Well-Being*. New York: Atria Paperback.
- Shimahara, N., and A. Sakai. 1995. *Learning to Teach in Two Cultures: Japan and the United States*. New York: Garland.
- Shimuzu, H. 1999. "Individuality, Learning, and Achievement: Japanese Perspectives." In *Competitor or Ally? Japan's Role in American Educational Debates*, edited by G. LeTendre, 161–185. Routledge, New York.
- Silova, I., J. Rapplee, and H. Komatsu. 2019. "Measuring What Really Matters: Education and Large-Scale Assessments in the Time of Climate Crisis." *ECNU Review of Education* 2 (3): 342–346. <https://doi.org/10.1177/2096531119878897>.
- Sims, T., J. L. Tsai, D. Jiang, Y. Wang, H. H. Fung, and X. Zhang. 2015. "Wanting to Maximize the Positive and Minimize the Negative: Implications for Mixed Affective Experience in American and Chinese Contexts." *Journal of Personality and Social Psychology*, <https://doi.org/10.1037/a0039276>.
- Sjøberg, S. 2015. "PISA and Global Educational Governance – A Critique of the Project, Its Uses and Implications." *EURASIA Journal of Mathematics, Science and Technology Education* 11 (1): 111–127. <https://doi.org/10.12973/eurasia.2015.1310a>.
- Snow, C. P. 1959. *The Two Cultures and the Scientific Revolution*. Oxford: Oxford University Press.
- Takayama, K. 2018. "How to Mess with PISA: Learning from Japanese Kokugo Curriculum Experts." *Curriculum Inquiry* 48 (2): 220–237. <https://doi.org/10.1080/03626784.2018.1435975>.

- Tsai, J. L. 2007. "Ideal Affect: Cultural Causes and Behavioral Consequences." *Perspectives on Psychological Science* 2 (3): 242–259. <https://doi.org/10.1111/j.1745-6916.2007.00043.x>.
- Tsai, J. L., 2023. "What the Gallup World Poll (GWP) Could Do to Deepen Our Understanding of Happiness in Different Cultures." In *Against Happiness*, edited by O. Flanagan, 235–248. Columbia University Press.
- Tsuneyoshi, R. 2000. *The Japanese Model of Schooling: Comparisons with the US*. New York: Routledge.
- Uchida, Y., V. Norasakkunkit, and S. Kitayama. 2004. "Cultural Constructions of Happiness: Theory and Empirical Evidence." *Journal of Happiness Studies* 5: 223–239. <https://doi.org/10.1007/s10902-004-8785-9>.
- Uchida, Y., and S. Oishi. 2016. "The Happiness of Individuals and the Collective." *Japanese Psychological Research* 58: 125–141. <https://doi.org/10.1111/jpr.12103>.
- Uchida, Y., and J. Rappleye. 2023. *An Interdependent Approach to Well-Being*. London: Palgrave.
- Uchida, Y., S. Townsend, H. Markus, and H. Bergsieker. 2009. "Emotions as Within or Between People? Cultural Variation in Lay Theories of Emotion Expression and Inference." *Personality and Social Psychology Bulletin* 35: 1427–1439. <https://doi.org/10.1177/0146167209347322>.
- Wittgenstein, L. 1997. *Philosophical Investigations*, edited by G. E. M. Anscombe. Oxford: Blackwell).
- You, Y. 2022. "Learn to Become a Unique Interrelated Person: An Alternative of Social-Emotional Learning Drawing on Confucianism and Daoism." *Educational Philosophy and Theory* 55 (4): 519–530. <https://doi.org/10.1080/00131857.2022.2117030>.
- You, Yun. Forthcoming. "Measuring Social and Emotional Development with a 'Western Ruler': Problematising the 'Cross-Cultural Comparability' of Study on Social and Emotional Skills in Chinese Context."
- Zhang, R. 2014. *Sadness Expressions in English and Chinese: Corpus Linguistic Contrastive Semantic Analysis*. London: Bloomsbury.