

**Олимпиада студентов и выпускников «Высшая лига» – 2022 г.  
Методические рекомендации и демонстрационная версия заключительного этапа  
по направлению «260. Психология»**

**Треки:**

«Когнитивные науки и технологии»	Код – 260.1
«Консультативная психология. Персонология»	Код – 260.2
«Позитивная психология»	Код – 260.3
«Прикладная социальная психология»	Код – 260.4

**Тематика заданий**

Тестовые вопросы **отборочного** этапа проверяют базовые знания по психодиагностике, экспериментальной психологии, общей психологии, социальной психологии, психологии личности. **Инвариантная** часть заключительного этапа обращена к исследовательским компетенциям участников Олимпиады. В **вариативной** части предлагаются на выбор 4 трека, в которых от 2 до 4 заданий.

**Темы трека «Когнитивные науки и технологии»:**

1. Psychology of perception and attention. pace and time perception. Configurations. Illusions. Recognition of visual patterns. Perception and action. Volume of perception. Selectivity of perception and structural models. Attention as mental effort and resource models. Features integration. Automatic and controlled processes.
2. Psychology of memory. Functional structure of the memory. Memory systems and levels. Three-components models. The theory of levels of processing. Working memory models.
3. Psychology of thinking. Global cognitive models. Higher cognitive functions. Approaches and models. Reasoning processes and models. The processes of problem-solving. Internal representation and problem solving. Decision-making.
4. Experimental Psychology. Basic and applied research. Development of new research ideas on the basis of theories and other studies. The measurements, sampling and data processing. Methods of specifying independent variables. The validity of experimental research. Types of validity. The main threats to the validity of the experiment. Problems of experimental control. Experimental plans: single-factorial, multi-factorial. Quasi-experimental plans. Correlational studies. Usage of the statistical methods.
5. The Psychophysiology of emotions. Basic emotions and the role of reflexive consciousness. Brain representation of the emotions (Panksepp). Fear system. Inhibition and regulation of emotions. Positive reinforcement.
6. Psychophysiology of perception and attention. General properties of sensory systems. Functional organization of the visual system. Color vision. The perception of space. Binocular competition. Object recognition. Filter Theory.
7. Psychophysiology of Memory. Functional organization of memory systems. Time-related memory organization. Explicit and implicit memory. Mechanisms of memory. Discontinuity of mnemonic processes. Prefrontal cortex and working memory. Memory extraction processes and metacognition.

**Темы трека «Консультативная психология. Персонология»:** Классические парадигмы познания личности. Теория личности С.Л. Рубинштейна. Понятие личности как субъекта жизни. Определение личности в категории жизненных отношений. Модели жизненных отношений личности. Понятия внутреннего и внешнего мира личности. Категория бессознательного в психоанализе. Процессы и содержания бессознательного. Основные категории и идеи аналитической психологии личности К.Г. Юнга. Основы гуманистической теории личности К. Роджерса. Понятие самоактуализирующейся

личности. Источники, условия, закономерности становления личности. Теории мотивации личности. Представления о личности и фундаментальных мотиваций в современном экзистенциальном анализе А. Лэнгле. Основные положения транзактного анализа Э. Берна. Понятия «эго-состояний», транзакций, сценариев личности. Персонология. Интегральные категории и парадигмы персонологии. Парадигма жизненных отношений Е.Б. Старовойтенко и парадигма отраженной субъектности В.А. Петровского. Теоретико-методологический фундамент психологического консультирования и немедицинской психотерапии. Предмет, цели, задачи психотерапии. Процесс и результаты психотерапии. Психологическое консультирование и психотерапия: сходство и различия. Нравственные, моральные и юридические аспекты регуляции психотерапевтической деятельности. Основные школы психологического консультирования и психотерапии. Психоаналитическое, человекоцентрированное, когнитивно-бихевиоральное, транзактно-аналитическое, экзистенциальное направления – специфика, взаимовлияние, синтез.

Темы трека **«Позитивная психология»**: Позитивная психология (история, основные конструкты, исследовательские вопросы). Психологическое и субъективное благополучие, счастье, удовлетворенность жизнью. Добродетели и силы характера. Теория черт. Дизайн и методы исследования в психологии личности. Психометрика. Развитие личности. Мотивация личности. Теория самодетерминации. Типы мотивации. Базовые психологические потребности как источник благополучия. Теория выученной беспомощности и оптимизма и ее применение в практике. Проблема качества жизни в науках о человеке. Психология здоровья.

Темы трека **«Прикладная социальная психология»**: Социальная и кросс-культурная психология. Социальная установка. Стереотипы. Предрассудки. Я-концепция. Социализация. Коммуникация. Конфликт. Социальное познание. Атрибуция. Идентификация. Эмпатия. Рефлексия. Атракция. Агрессивное поведение. Малая группа. Эффекты социального влияния. Лидерство. Групповые решения. Групповая сплоченность. Психология межгрупповых отношений. Социальная идентичность. Культура и личность. Культура и основные психологические процессы. Культурные синдромы. Психологические измерения культур. Ценности. Межкультурные различия в общении. Аккультурация. Межэтнические конфликты. Этническая толерантность.

### **Информация о первом (отборочном) этапе**

Продолжительность состязания – 60 минут.

Задание первого (отборочного) этапа включает 40 тестовых вопросов на русском языке с автоматической проверкой ответов. Вопросы различаются по уровню сложности и могут оцениваться от 2 до 4 баллов. В сумме участник может набрать 100 баллов.

### **Информация о втором (заключительном) этапе**

Продолжительность состязания – 240 минут. В сумме участник может набрать 100 баллов за выполнение заданий заключительного этапа.

Задания второго (заключительного) этапа состоят из инвариантной и вариативной частей.

В **инвариантной** части участнику предлагаются 2 исследовательские задачи, максимальная оценка за каждую – 25 баллов.

При выборе треков «Консультативная психология. Персонология» и «Позитивная психология» язык решения задач инвариантной части – русский. При выборе треков «Когнитивные науки и технологии», «Прикладная социальная психология» язык решения инвариантной части – английский.

В **вариативной** части по треку 1 (Когнитивные науки и технологии) предлагаются следующие задачи: подготовка аннотации статьи (25 баллов) и решение задачи по статистике (25 баллов).

По треку 2 (Консультативная психология. Персонология) предлагаются следующие задачи: задание по персонологии (20 баллов) и решение консультативного кейса (30 баллов) с выбором аналитической модели из трех предложенных (экзистенциальный анализ и логотерапия, человекоцентрированный подход, транзактный анализ).

По треку 3 (Позитивная психология) предлагаются следующие задачи: исследовательский кейс (20 баллов) и анализ англоязычной статьи (30 баллов).

По треку 4 (Прикладная социальная психология) предлагаются следующие задачи: практический кейс по социальной психологии (20 баллов) и анализ англоязычной статьи (30 баллов).

В сумме за вариативную часть участник может набрать до 50 баллов.

## **Демонстрационный вариант второго (заключительного) этапа**

### **Задания инвариантной части**

**Задание 1. Прочитайте представленный пререгистрационный протокол (preregistration protocol) исследования. Предложите улучшения исследования в части его методов, дизайна или исследовательских процедур. Укажите, с какими ограничениями может столкнуться данное исследование и предложите варианты, как возможно преодолеть какие-либо из этих ограничений.**

#### **Preregistration protocol**

##### **Title**

How smartphone notification brings on negative affect and happiness?

##### **Description**

The usage of smartphones for scientific purposes is gaining more and more popularity (e.g., Fisher & To, 2012). Indeed, smartphones as research tools in the field of psychology bear multiple significant advantages (see Miller, 2012; Raento, Oulasvirta, & Eagle, 2009). Smartphones seem to be ideally suited as tools for Experience Sampling Methodology (ESM; Hektner, Schmidt, & Csikszentmihalyi, 2007). Experience Sampling is aiming at studying everyday psychological phenomena in naturalistic settings, asking participants about their momentary behaviour, thoughts, or emotions at various moments. While traditional methods rely on retrospective or generalized self-reports, ESM provides in-situ and in-vivo self-report data (Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004; Mehl & Conner, 2012), thus phenomena are captured where and when they actually occur. Considering repeated measurements in the field, ESM is promising the advantage of enhancing or maximizing ecological validity. Due to their versatile properties, smartphones have eventually already replaced other devices in the ESM context.

It could be shown that notifications can induce negative affects to their recipients: Objective and subjective e-mail and social network (but not messenger) notification counts are positively correlated with negative emotions like the increased feelings of being overwhelmed, stressed, interrupted and annoyed (Pielot et al., 2014). Furthermore, when apps subjectively not perceived as useful continue sending notifications, users become annoyed and consider deleting them from their phones (Felt, Egelman, & Wagner, 2012). Weber, Voit, Auda, Schneegass, and Henze (2018) allowed their participants (N=16) to explicitly “snooze” the notifications of all apps installed on their smartphones via NHistory, an app specifically developed for this purpose. Main motives for deferring notifications included avoidance of switching contexts, being unable (e.g., while driving), or not being in the mood to react to the prompts.

## Hypotheses

When smartphone notifications themselves are evoking specific emotions, what implications can be deduced for signal-based measuring of the latter? Particularly, when measuring momentary affect like anger, is the data gained confounded by the affect caused merely by the beep itself? With the aim of “regaining their freedom”, do respondents also show reactance effects (e.g., higher missing)?

If beep-induced affect spills over to the measurement of affect in the ESM design, then we expect that participants using their standard notification sound (experimental group) should have higher activation, more negative feelings, and lower happiness scores than participants using the ESM software with our predefined neutral notification sound (control group).

## Design Plan

Experiment — A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.

Blinding — For studies that involve human subjects, they will not know the treatment group to which they have been assigned.

## Study design

ESM design is about ‘personality in everyday life’. After participants agree to the informed consent, they are randomly assigned either to the ‘standard notification’ or the ‘specific notification’ group (i.e., specific notification group uses a sound which was designed by us and should be unique — not used in any other smartphone). We will use three randomized bings per day and additionally an end-of-the-day questionnaire.

## Data collection procedures

A smartphone-based ESM study will be conducted, lasting 3 weeks. Keeping the face validity high, participants will not know our research questions. The official title of the survey will be “personality in everyday life”. Participants will have to download and install the app ESMira to their Android phones, which is freely available in the Google App Store. Via ESMira, participants will be signalled, questionnaires administered, and responses recorded.

## Sample size

Our target sample size is 194 (92 in each group). We will attempt to recruit more than 300 participants to account for dropouts and missings.

## Variables

Manipulated variables — We manipulate the standard ring tone of the smartphone by either using the standard sound participants use for their smartphone or a (neutral) sound we designed by including it into the ESM software ESMira.

Measured variables — Affect grid, Happiness.

**Задание 2. Прочитайте статью и сформулируйте исследовательские проблемы, которые затрагивает автор. Предложите свой план исследования для любой из этих проблем.**

## Connecting Through Technology During the Coronavirus Disease 2019 Pandemic: Avoiding “Zoom Fatigue”

Brenda K. Wiederhold

You click “Leave Meeting” and blink, bleary-eyed from yet another video call. It was only an hour long, just like the in-person meeting you used to have each week, but gathering online has left you tired and irritable, ready to swear off the Internet for good. With many of us shifting our work and social lives online due to coronavirus disease 2019 (COVID-19) and shelter-at-home orders, use of videoconferencing programs has increased exponentially. For example, while only 10 million people attended meetings on Zoom at the end of 2019 before coronavirus was widespread, by April 2020 usage had exploded to 300 million.<sup>1</sup> Technology such as Zoom has

made it possible to continue some semblance of business as usual during quarantine, allowing people to move their lives online while maintaining physical distance in order to stop the spread of the virus. Adopting new technology rarely comes without a few bumps, and the current situation is no exception. Aside from mechanical malfunctions and networks struggling to handle increased traffic, people are now beginning to recognize a new phenomenon: tiredness, anxiety, or worry resulting from overusing virtual videoconferencing platforms—something researchers and journalists have begun calling “Zoom fatigue.”<sup>2</sup> Why do video calls take so much more out of a person than meeting face to face? The answer, according to scientists such as Jeremy Bailenson, professor and director of Stanford University’s Virtual Human Interaction Lab, is that technology can disrupt our normal intricate human communication methods that have been finely tuned over centuries to help humans survive.<sup>1</sup> One of the issues with videoconferencing programs is that online communication, while extremely useful, is not completely synchronous. Though it appears that things are happening in real time, the truth is there is a slight delay between when a person performs an action and when the other participants are able to observe it. Humans use a range of precisely timed vocalizations, gestures, and movements to communicate, and they rely on precise responses from others to determine if they are being understood. Scientists call this synchrony.<sup>1</sup> If a delay is introduced to this system, even if this delay is only milliseconds, subconsciously, our brains still register the issue and work harder to try to overcome it and restore synchrony. So, there is an element of mental exertion and performance involved with online communication that can be taxing.<sup>3</sup> Aside from the issue of the delay, there are other attributes that make videoconferencing more demanding than inperson communication. For one, face-to-face communication is not really just face-to-face. We take in signals from others’ whole bodies in order to understand what they have to say. Yet, most videoconferences frame only a person’s face, therefore eliminating access to many of these nonverbal cues. This can make it difficult to tell if others on the call are still with you and if they understand what you are saying. In addition, many videoconference programs have a chat function, which, while useful for clarifying points and sharing ideas, can also be a distraction from the verbal communication taking place. Finally, it can be unnerving to have a person’s enlarged face in your space, something that our brains can register as threatening.<sup>2</sup> Even though we know we are safe, subconsciously, this large appearance and prolonged eye contact can register as intimidation, flooding our bodies with stress hormones. When all of this is put together, it is no wonder we often leave video calls feeling unsettled and exhausted. One way to overcome technological exhaustion is actually through the use of different technology. Spatial is a startup company that recently released a program that enables people to meet through augmented or virtual reality (VR), allowing users to use headsets from a variety of brands to meet up in a virtual conference room.<sup>4</sup> Participants can appear as full body avatars, re-creating some of the nonverbal communication that is often lost with traditional videoconferencing software. One can fist bump or shake hands and interact with others in ways that make for an experience that is more similar to face-to-face meetings. Unsurprisingly, there has been a 1,000% increase in the demand for this program since the spread of COVID-19 began, and the good news is that the platform is currently completely free and open to everyone. The drawback is that in order to get the most benefit from the program, users must have access to a (sometimes high-cost) VR headset. That said, the price of VR technology is reducing every day. So, this is something that could be widely used in the near future. While we wait, there are many things that can be done to use traditional videoconferencing software more effectively and enjoyably. The first is to make facial nonverbal cues obvious. One way to do this is quite low tech. Consider propping up your screen on a book or two in order to create a straight horizontal line from your face to the speaker’s, making it easier to see each other’s micro expressions.<sup>5</sup> You should also light your face from the front,<sup>5</sup> as well as being sure that your head and the top of your shoulders dominate your window.<sup>6</sup> Another way to help facilitate communication is to create an authoritative presence. To create the illusion of direct eye contact, you should look at your camera, not at the other participants.<sup>6</sup> Be sure to find a location where your background is simple and clean,

signaling professionalism.<sup>6</sup> Stay on mute whenever you are not speaking to avoid any unfortunate interruptions, and use a slightly louder than normal voice when speaking, as if you are presenting to a large conference room.<sup>6</sup> Be sure to avoid any side activities, staying fully engaged in the meeting.<sup>6</sup> To prevent Zoom fatigue, the most important tip is to limit use of videoconferencing technology. One suggestion is to try staggering your meetings with non-screen breaks in between.<sup>2</sup> You might also suggest to other participants that during meetings everyone turn off their video feeds while not speaking in order to eliminate distraction and overstimulation.<sup>2</sup> Either way, the key is to use moderation with all types of technology while enjoying the connection and interactivity it can bring.

## **Задания вариативной части**

### **Трек 1. Когнитивные науки и технологии**

#### **Task 1 - abstract (paper is presented, they need to prepare an abstract)**

Please read the introduction, methods and results sections of the short research article that is provided. It is entitled “Prediction errors disrupt hippocampal representations and update episodic memories» (2021). Authors, abstract, conclusions and references are not provided.

Your task is to compose an abstract of 200-250 words. The abstract should include (a) the motivation of the study, (b) the main hypothesis, (c) key aspects of the experimental design, (d) main findings and (e) conclusions.

Sinclair et al. “Prediction errors disrupt hippocampal representations and update episodic memories» (2021) published in PNAS (2021).

#### **Task 2 - Statistics**

Consider a study with 7 experiments that compared performance of two groups of people (left-handed and right-handed) in a cognitive task and that consistently showed significant difference ( $p < 0.05$ ) between the groups (i.e.  $p < 0.05$  in each experiment). Let's assume that statistical power for detecting the difference is constant across the 7 experiments and the power is 0.6. It can be said that these results of the study are too good to be true (Francis, 2012).

Describe definitions of (a) Fischer p-value and (b) statistical power.

(c) Compute probability that that the difference becomes consistently significant ( $p < 0.05$ ) in all of the 7 experiments based on the power (0.6) and (d) discuss how the results are “too good to be true”.

### **Трек 2. Консультативная психология. Персонология**

**Задание 1. Опираясь на релевантные теории и модели опишите специфические противоречия зависимых отношений личности со значимым Другим.**

**Задание 2.** Александр, мужчина 42 лет, член правления крупной коммерческой структуры, женат, имеет 2 детей, обратился с запросом на помощь в преодолении усталости («усталость от жизни», как он сам ее квалифицирует), отсутствия интереса и

задора к работе, которой много и успешно занимается, неудовлетворенности в своей семейной ситуации (отсутствие взаимопонимания и радости от общения с женой и детьми). О себе рассказывает, что сколько себя помнит, всегда старался быть успешным: примерным сыном, учеником, студентом, специалистом, руководителем, семьянином, другом и т. п. Во всем этом он, вне всякого сомнения, преуспел и с внешней точки зрения является очень успешным современным человеком. Но его внутреннее его состояние, особенно в последние годы, характеризуется «пустотой и унылостью».

**Опишите ваши соображения о природе состояния Александра и возможный подход к его психологическому сопровождению с позиций одного из трех подходов: 1) транзактно-аналитического, 2) экзистенциально-аналитического; 3) человекоцентрированного**

### **Трек 3. Позитивная психология**

#### **Задание 1.**

**Прочитайте приведенную статью. Выполните следующие задания на русском языке.  
Рекомендуемое время выполнения данного задания — 60 мин.**

- 1) Напишите аннотацию приведенной статьи объемом не более 300 слов (15 баллов максимум).**
- 2) Предложите свой дизайн исследования на тему статьи (15 баллов максимум).  
Сформулируйте исследовательский вопрос (гипотезы) исследования.  
Опишите выборку и методы исследования. Опишите предполагаемые результаты и ограничения исследования.**

## How WEIRD are positive psychology interventions? A bibliometric analysis of randomized controlled trials on the science of well-being

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### Introduction

Many scholars agree that until recently, research in psychology and other disciplines in the social sciences has been western-centric (Berry, 2013; Cole, 2006; Jahoda, 2016; Stewart, 2012; Sue, 1999). Psychology as a social science has been criticized for being primarily a Western enterprise that uses findings from studies of thought and behavior of people living in the Western hemisphere and generalizes them to the entire human population. On the basis of an analysis of six premier APA journals, Arnett (2008) concluded that American psychologists focus on 5% to 7% of the human population. In particular, psychological research is dominated by scholarship emerging from the United States (Eysenck, 2001). Even within cross-cultural psychology, U.S. psychologists are responsible for 50% to 75% of all published articles, and tend to be cited more often (Allik, 2013) than psychologists from other countries. Additionally, a large majority of the samples are drawn from undergraduate psychology students at North American universities (Arnett, 2008), and these samples are very atypical and do not represent characteristics of the majority of the world's population. Henrich, Heine, & Norenzayan (2010a, 2010b) describe these samples as WEIRD – Western, Educated, Industrialized, Rich and

Democratic – to capture the demographic characteristics as well as to allude to the idiosyncratic nature of the populations represented in the majority of published research. The acronym highlights that the larger part of the scientific knowledge about human psychology is based on the findings of studies conducted within a specific research population, namely, wealthy undergraduate students in the U.S.

In line with broader trends in psychological science, as identified by Arnett (2008), a bibliometric analysis of positive psychology publications from the inception of the field in 1998 to 2010, reported that 74.5% of the authors were affiliated with institutions in North America, 17.6% in Europe, 3.2% in Asia (mostly China), 1.4% in Africa (mostly South Africa), and 0.9% in South and Central America. Hence, approximately 94.5% of the research stems from Western countries, and only 5.5% from non-Western countries (Schui & Krampen, 2010). Their analyses included quantitative and qualitative research papers, edited books, book chapters, and dissertations. In this paper, we focus on randomized controlled trials (RCTs) examining the effects of positive psychology interventions (PPIs). PPIs are interventions aimed at increasing positive feelings, behaviors, and cognitions, that use pathways or strategies to



increase well-being based on positive psychological theories and empirical research (Schueller, Kashdan, & Parks, 2014; Schueller & Parks, 2014).

Mirroring the concerns in broader psychological science, cross-cultural psychologists and anthropologists have expressed concern that such a strong North American influence in positive psychology distorts the construction of human happiness and flourishing; positive psychology is bound to North American culture and neglects the cultural embeddedness of positive human behavior (Christopher & Hickinbottom, 2008; Frawley, 2015). They argue that the positive psychology movement is deeply entrenched in Northern American ideology that emphasizes the pursuit of individual happiness as one of the most important goals in life. The antecedents of human flourishing most frequently studied tend to be those located within the individual. Flourishing is constructed predominately as an individual process and achieved through the cultivation of individual strengths and virtues, while the importance of external factors on macro- and micro-economic levels, as well as social, cultural and even historical factors, are underestimated or simply neglected (Becker & Marecek, 2008). Thus, the research emerging from North America seems to reflect the foci and cultural values of the region. A more recent systematic review of 863 empirical articles about positive psychology studies published between 1998 to 2014, reported that 41% of the studies were conducted in the U.S., 24% in Europe, 7% in Canada, 6% in Australia. So, only about 78% of the articles were conducted in Western countries indicating a trend towards greater global representation of research in positive psychology (Kim, Doiron, Warren, & Donaldson, 2018). Kim and colleagues' (Kim et al., 2018) review of the research emphases and foci found support for the assertion that the contributions situated outside of North America reflected the values, priorities, and cultural ideologies of the regions in which they originated, and this enriched the science.

Positive psychology is a relative newcomer to the scientific community and still draws some skepticism regarding its credibility (Coyne & Tennen, 2010; Frawley, 2015; Vazquez, 2013). Since the RCT is considered the gold standard in clinical research – the most rigorous method that can determine causal relations between interventions and outcomes (Sibbald & Roland, 1998), positive psychology studies that uphold this standard are more likely to be accepted by the broader scientific community. Therefore, we have focused on RCTs of PPIs in this bibliometric review. To summarize, we assess the state-of-the-art with respect to the cultural and socio-demographic context of current RCTs on the effects of PPIs.

### **Present study**

In this study, we report on the general characteristics of RCTs and present the types of positive activities that are included in the intervention. Further, to address past concerns about positive psychology being too Western-centric (Cameron, 2016; Christopher & Hickinbottom, 2008), the current study examines whether positive psychology is truly a 'WEIRD' science, by analyzing the country of origins, educational level of the participants, the industrialization level of the originating countries, the classification of the income levels of these countries, and finally the classification of political regimes.

### **Method**

#### **Literature search methods**

A systematic literature search was conducted in the following three databases: PubMed, PsycINFO, and Scopus, from 1998 to 2017. The last run was conducted on the 25th of July 2017. The search was conducted by the first and third author. We searched the databases with the following terms: 'positive psycho\*' OR wellbeing OR happiness OR happy OR flourishing OR 'life satisfaction' OR 'satisfaction with life' OR optimism OR gratitude OR strengths OR forgiveness OR compassion AND 'random\*'. The search strings were adapted to each database. While Western journals that are devoted to the science of well-being are included in the aforementioned mainstream databases (e.g. the Journal of Positive Psychology and the Journal of Happiness Studies), these databases may not include publications from non-Western positive psychology journals. Therefore, we conducted a search in Google and found two such journals, namely the Indian Journal of Positive Psychology and the Iranian Journal of Positive Psychology. We conducted a hand search through their websites. Finally, reference lists of four recent meta-analyses (Bolier et al., 2013; Chakhssi, Kraiss, Sommers-Spijkerman, & Bohlmeijer, 2018; Dickens, 2017; Sin & Lyubomirsky, 2009) and seven recent review articles on PPIs (Casellas-Grau, Font, & Vives, 2014; Ghosh & Deb, 2016; Macaskill, 2016; Rashid, 2015; Sutipan, Intarakamhang, & Macaskill, 2016; Walsh, Cassidy, & Priebe, 2017; Woodworth, O'Brien-Malone, Diamond, & Schuz, 2016) were checked.

#### **Eligibility criteria**

For this study, we focused on RCTs of PPIs. We included: i) randomized controlled trials and cluster-randomized trials on PPIs; ii) studies that were published in peer-reviewed journals; iii) studies published

from 1998, the inaugural year of positive psychology, to 2017. We excluded: i) non-randomized controlled studies; ii) studies published in dissertations and grey literature.

#### **Data extraction and analysis**

Bibliometric data (number of authors, publication year, origin, journal of publication), data on participants (population, sample size, mean age, gender, education) and intervention data (intervention components, control groups, delivery mode, number of sessions/modules, session duration, and type of positive psychology activities) were extracted by the first author. Two authors classified *WEIRD* indicators in the following ways. Data were analyzed descriptively using SPSS® version 23 and Microsoft Excel®.

#### **Western**

Following Gosling, Sandy, John, and Potter (2010), we classified North America, Western Europe, Israel, Australia and New Zealand as Western-societies. We also examined the number of participants explicitly identified as Caucasian or non-Caucasian. Finally, we examined if the interventions in the studies were culturally adapted, that is, if there was evidence of systematic modification of evidence-based treatments (EBT) or intervention protocols so that they were made compatible with the cultural patterns, meanings, and values of participants in the intervention (Bernal & Domenech Rodriguez, 2012).

#### **Educated**

Education was assessed using two methods. At the macro-level, the level of human development in a specific country was used as an indicator for the education level. This was done on the basis of the data from the Human Development Report (2015) that classified the general population of the country as having a very high, high, medium, or low level of human development (United Nations Development Programme, 2015). We also analyzed education on an individual level and report the numbers and percentages of study participants who received a higher education (attended college or university for at least one year).

#### **Industrialized**

The term 'industrialized' is often associated with a high level of economic and technological development of a country. We classified countries as having an advanced economy or an emerging/developing economy on the basis of data from the World Economic Outlook (International Monetary Fund, 2016). Countries that are described as advanced economies are characterized by

high gross domestic product (GDP) and a high degree of industrialization (International Monetary Fund, 2016). Countries classified as emerging/developing economies are markets with high growth expectations, characterized by a high level of risk and extremely volatility (Mody, 2004).

#### **Rich**

As few individual studies report demographics on the income level of the participants, we primarily used country data from the Global Wealth Databook (2013) that aims to provide the best available estimates of the wealth-holding of households worldwide (Credit Suisse, 2013). In order to be exhaustive, we also reviewed the income of study participants in studies in which this information was reported.

#### **Democratic**

Classification of the state of democracy was based on the Democracy Index as compiled by the Economist Intelligence Unit (Kekic, 2008).

## **Results**

### **General bibliometrics**

We identified a total of 8,248 records. After removal of duplicates, 7,136 records remained. These records were screened by the first and third author, after which 301 records were found to be eligible. Of these records, 114 articles were excluded. We finally included 187 articles in our bibliometric analysis that consisted of 188 original studies. Figure 1 shows the results of the literature search.

Since 1998 was considered as the year of the conception of the positive psychology movement, the earliest year of publication was 1998 with two studies, followed by two years in which no RCTs were published. Between 2001 and 2009, the number of studies varied from two to four per year, except for a peak of twelve studies in 2006. In 2009, there were eight published studies, in 2010 the number dropped to five. From 2011, there is a steady rise in the number of studies, with peaks in 2014 (33 studies) and 2016 (49 studies). An overview is depicted in Figure 2. In the period from 1998 to 2007 no publications from non-Western countries were published on a yearly basis, with the exception in 2004 with one study from China. During the period 2008 – 2016 every year a minimum of one RCT from a non-Western country was published.

The studies were published in 118 different journals, and the following journals published three or more studies: *The Journal of Positive Psychology* ( $n = 24$ , 12.2%), *Journal of Happiness Studies* ( $n = 8$ , 4.3%), *Journal of Clinical Psychology* ( $n = 7$ , 3.7%), *Journal of Consulting and*

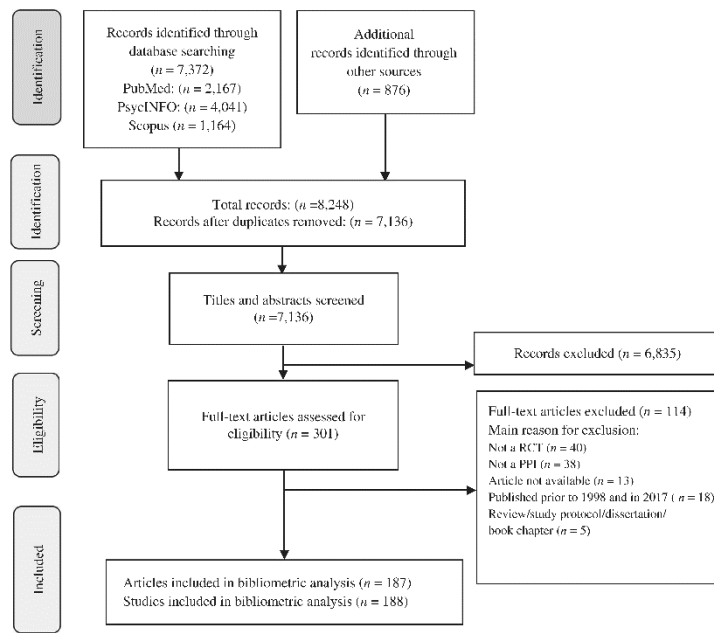


Figure 1. Results of literature search.

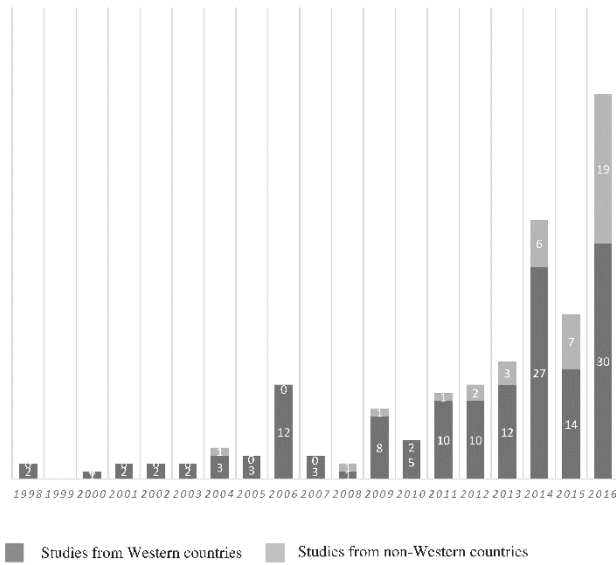


Figure 2. Randomized controlled trials on positive psychology interventions through time.

*Clinical Psychology* ( $n = 4$ , 2.1%), *Journal of Medical Internet Research* ( $n = 4$ , 2.1%), *Aging & Mental Health* ( $n = 3$ , 1.6%), *American Psychologist* ( $n = 3$ , 1.6%), *Frontiers in Psychology* ( $n = 3$ , 1.6%), *International Journal of Geriatric Psychiatry* ( $n = 3$ , 1.6%), *Journal of Personality and Social Psychology* ( $n = 3$ , 1.6%), and *Social Indicators Research* ( $n = 3$ , 1.6%).

### Participants

A total of 43,582 individuals participated in 188 RCTs. Study sample sizes ranged from 10 to 3,363 (median = 83.0). The mean age of the participants was 37.1 (29 studies did not report the mean age of the participants). There were 164 (87.2%) studies that included adults, of which 10 (5.3%) were elderly (older than 62 years). Twenty-two studies (11.7%) included children or adolescents and 2 studies (1.1%) included both adults and children. Sixty-six studies were conducted among clinical populations (35.1%) and 122 studies among non-clinical populations (64.9%). For the clinical population, the two most frequently studied conditions were depression ( $n = 13$ , 19.7% of the clinical population) and cancer ( $n = 10$ , 15.2%). Other categories were patients with addiction problems ( $n = 5$ , 7.6%), patients with affective disorders ( $n = 5$ , 7.6%), patients with cardiac problems ( $n = 4$ , 6.1%), patients with chronic pain ( $n = 3$ , 4.5%), HIV/AIDS patients ( $n = 3$ , 4.5%), patients with traumatic brain injury ( $n = 3$ , 4.5%), patients with diabetes ( $n = 2$ , 3.0%), patients with PTSD ( $n = 1$ , 1.5%), and women with fertility problems ( $n = 1$ , 1.5%). Twelve studies did not specify the nature of the physical or psychological problems (18.3%). The non-clinical population consisted of healthy adults ( $n = 59$ , 48.4%), university/college students ( $n = 39$ , 32.0%), school children/adolescents ( $n = 15$ , 12.3%), and elderly ( $n = 9$ , 7.4%). The proportion of female participants at baseline assessment ranged from 0% (5 RCTs, 2.7%) to 100% (30 RCTs, 16.0%), with a median of 72.0% (IQR = 29.4). Seven RCTs (3.7%) did not report the proportion of female participants at baseline assessment. The total number of women participating in the 180 remaining studies is 29,889, which is 73.7% of the population in the 180 studies.

### Interventions

We made the distinction between single component intervention studies and multi-component intervention studies. Single component intervention studies usually consist of one or two single positive psychology activities. Multi-component positive psychology interventions (MPPIs) are interventions that are composed of a minimum of three positive psychology activities that follow one or more of the following pathways: i) savoring (intensifying and prolonging momentary pleasurable experiences); ii) expressing

gratitude (through reflection and activities of expression); iii) engaging in acts of kindness; iv) promoting positive relationships; v) promoting meaning and purpose (Hendriks et al., 2017; Schueller & Parks, 2014; Schueller, Kashan, and Parks, 2014). Our analysis contained 118 single component interventions (62.8%) and 70 multi-component interventions (37.2%). Interventions were delivered in the followings ways: group based ( $n = 98$ , 52.0%), individual ( $n = 11$ , 5.9%), and self-help ( $n = 79$ , 42.1%). Thirty-two self-help studies were delivered online (17.1%). It should be noted that one group-based interventions provided additional individual sessions, two individual interventions provided an online supplement, and thirty-two self-help studies were delivered completely online.

### Positive psychology activities

In our analysis, we included 169 studies (89.9%) that specified the positive psychology activities; we excluded 19 studies (10.1%) that provided only information on the themes or the domains of the modules, or an incomplete overview of the activities. Similar activities were often presented under different names. Finally, we categorized the activities into 15 types of positive psychology activities (See Appendix I). We found that activities that focus on the recollection of positive feelings were the most frequently used activities. Other popular positive psychology activities include positive psycho-education, identifying and using strengths and virtues, the expression of gratitude, acts of kindness, and positive thinking. A complete overview is shown in Table 1.

When comparing the activities used in non-Western versus Western studies (and considering the overall ratio of 1:3.6), we can conclude that life review (positive reminiscence) and spiritual activities are used considerably more often, whereas acts of kindness, mindfulness, best possible selves and physical activities are used considerably less often in non-Western countries.

### WEIRD bibliometrics

#### Western

We found that 147 studies (78.2%) originated from Western countries compared to 41 studies (21.8%) from non-Western countries. The studies were conducted in 24 different countries; the 14 Western countries were Australia, Belgium, Canada, Finland, Germany, Ireland, Israel, Italy, Norway, the Netherlands, Spain, Switzerland, United Kingdom, and the United States. The ten non-Western countries were China, India, Iran, Japan, Malaysia, the Philippines, South Africa, South Korea, Taiwan, and Turkey. We witnessed a sharp increase in the number of studies from non-Western

**Table 1.** Overview positive psychology activities.

Positive activity	Total		non-Western		Western	
	#	%	#	%	#	%
Positive recollection	85	50.3%	18	10.7%	67	39.6%
Positive psycho-education	46	27.2%	13	7.7%	33	19.5%
Strengths and Virtues	40	23.7%	11	6.5%	29	17.2%
Gratitude expression	37	21.9%	11	6.5%	26	15.4%
Acts of kindness	36	21.3%	6	3.6%	30	17.8%
Positive thinking	35	20.7%	9	5.3%	26	15.4%
Goal setting	31	18.3%	10	5.9%	21	12.4%
Mindfulness	31	18.3%	6	3.6%	25	14.8%
Life review	30	17.8%	14	8.3%	16	9.5%
Forgiveness	26	15.4%	6	3.6%	20	11.8%
Meaningful activities	23	13.6%	4	2.4%	19	11.2%
Best possible self	21	12.4%	2	1.2%	19	11.2%
Spiritual activities	14	8.3%	6	3.6%	8	4.7%
Healthy life style	11	6.5%	0	0.0%	11	6.5%
Self-compassion	11	6.5%	3	1.8%	8	4.7%

origins through time (See Figure 2). In the period from 1998 through 2007, we only found 1 published study of non-Western origin, which was published in 2004. From 2008 to 2011, an average of 0.75 studies per year was published. Since 2012, the number has been rising sharply. In 2012, there were two published studies (16.7%): one from Iran and one from Japan. In 2013, three studies (20%) from non-Western countries were published: two from China and one from South Korea. In 2014, there were six studies (18.2%): two from China, one each from India, Iran, Japan, and South Africa. In 2015, seven studies (33.3%): three from China, two from Iran, one from India and one from Turkey. Finally, in 2016 there were 19 published studies (38.8%): seven from China, five from Iran, two from South Korea, and one each from India, Japan, Malaysia, the Philippines, and Taiwan. Over the past 20 years, the ratio of non-Western versus Western RCTs has increased from 1:13.3 in the period 1998 – 2011, to an average of 1:2.6 in the period 2012 – 2016. This is shown in Table 2.

Most studies were conducted in the United States ( $n = 74$ , 39.4%), followed by Australia ( $n = 18$ , 9.6%), China ( $n = 15$ , 8.0%;  $n = 10$ , 5.3% in Hong Kong and  $n = 5$ , 2.7% in the mainland of China), Iran ( $n = 10$ , 5.3%), and the United Kingdom ( $n = 10$ , 5.3%). Countries where five to nine studies were conducted were: Switzerland ( $n = 9$ , 4.8%), the Netherlands ( $n = 8$ , 4.3%), Canada ( $n = 6$ , 3.2%), and Spain ( $n = 6$ , 3.2%). Countries where two to five studies were conducted were Germany ( $n = 4$ , 2.1%), India ( $n = 3$ , 1.6%), Ireland ( $n = 3$ , 1.6%), Italy ( $n = 3$ , 1.6%), Japan ( $n = 3$ , 1.6%), South Korea ( $n = 3$ , 1.6%), Taiwan ( $n = 3$ , 1.6%), Israel ( $n = 2$ , 1.1%), and Norway ( $n = 2$ , 1.1%). Countries where one study (0.5%) per country was conducted were Belgium, Finland, Malaysia, the Philippines, South Africa, and Turkey. Table 3 also contains the overview of the country origins.

Sixty-two studies from Western origins reported the ethnicity of the participants: from a total of 8,713

**Table 2.** Ratio non-Western versus western publications.

Year	# non-Western RCTs	# Western RCTs	Ratio
1998–2011	4	53	1:13.3
2012	2	11	1:5.5
2013	3	12	1:4.0
2014	6	27	1:4.5
2015	7	14	1:2.0
2016	19	30	1:1.6

participants, 5,936 were Caucasian (68.1%) and 2,777 were non-Caucasian (31.9%). Although not specifically reported in all studies from non-Western origins, we believe it is fair to assume all participants from these 41 studies ( $n = 11,266$ ) to be non-Caucasian, bringing the total (estimated) number of non-Caucasian participants to 14,183 (32.2%) of the entire population. In addition, we examined whether the interventions were culturally adapted or not. We found 17 (41.5%) studies using intervention programs that were culturally adapted, and 24 (58.5%) studies in which the programs were not culturally adapted (including four studies in which there was no clear description).

### Education

In total, 17 (70.8%) countries were characterized by very high human development, two (8.3%) countries were characterized by high human development and three (12.5%) countries were characterized by medium human development (See Table 3). It should be noted that mainland China is indicated as having high human development, whereas Hong Kong, China is indicated as having very high human development (10 studies). Data from Taiwan were not available. However, since Taiwan is known as one of the five so-called 'Asian economic tigers' we believe it is reasonable to assume the level of education is comparable to South Korea and Hong Kong. Thus, Taiwan is classified as having very high human development. On an individual level, it was possible to partly analyze the educational level of populations in the trials: 98 (52.1%) studies provided sufficient information. We found that from the 17,627 participants in these 98 studies, 12,771 participants (72.4%) had a relatively high educational level, having attended at least one year of college.

### Industrialized

The economies of 17 (70.8%) countries were classified as advanced (See Table 3). These countries include all Western countries and three non-Western countries (Japan, South Korea, and Taiwan). Six countries (25.0%) were classified as emerging and developing economies (India, Iran, Malaysia, the Philippines, South Africa, and Turkey). China (4.2%) is considered to have

Table 3. Number of studies per country and WEIRD descriptions.

COUNTRY	STUDIES	REGION	EDUCATED	INDUSTRIALIZED	RICH	DEMO CRATIC
USA	74 (59.4%)	Western	Very high human development	Advanced economy	High income	Full democracy
Australia	18 (9.6%)	Western	Very high human development	Advanced economy	High income	Full democracy
China	15 (8.0%)	non-Western	(Very) high human* development	Advanced/emerging economy**	High/Lower middle income	Authoritarian
Iran	10 (5.3%)	non-Western	High human development	Emerging economy	Lower middle income	Authoritarian
UK	10 (5.3%)	Western	Very high human development	Advanced economy	High income	Full democracy
Switzerland	9 (4.8%)	Western	Very high human development	Advanced economy	High income	Full democracy
the Netherlands	8 (4.3%)	Western	Very high human development	Advanced economy	High income	Full democracy
Canada	6 (3.2%)	Western	Very high human development	Advanced economy	High income	Full democracy
Spain	6 (3.2%)	Western	Very high human development	Advanced economy	High income	Full democracy
Germany	4 (2.1%)	Western	Very high human development	Advanced economy	High income	Full democracy
India	3 (1.6%)	non-Western	Medium human development	Emerging economy	Low income	Flawed democracy
Ireland	3 (1.6%)	Western	Very high human development	Advanced economy	High income	Full democracy
Italy	3 (1.6%)	Western	Very high human development	Advanced economy	High income	Full democracy
Japan	3 (1.6%)	non-Western	Very high human development	Advanced economy	High income	Full democracy
South Korea	3 (1.6%)	non-Western	Very high human development	Advanced economy	High income	Flawed democracy
Taiwan	3 (1.6%)	non-Western	Very high human development	Advanced economy	High income	Flawed democracy
Israel	2 (1.1%)	Western	Very high human development	Advanced economy	High income	Full democracy
Norway	2 (1.1%)	Western	Very high human development	Advanced economy	High income	Full democracy
Belgium	1 (0.5%)	Western	Very high human development	Advanced economy	High income	Full democracy
Finland	1 (0.5%)	Western	Very high human development	Advanced economy	High income	Full democracy
Malaysia	1 (0.5%)	non-Western	High human development	Emerging economy	Upper middle income	Flawed democracy
the Philippines	1 (0.5%)	non-Western	Medium human development	Emerging economy	Lower middle income	Flawed democracy
South Africa	1 (0.5%)	non-Western	Medium human development	Emerging economy	Upper middle income	Flawed democracy
Turkey	1 (0.5%)	non-Western	High human development	Emerging economy	Lower middle income	Flawed democracy

\*Mainland China is indicated as having a high human development (5 studies), whereas Hong Kong, SAR is indicated as having very high human development (10 studies)\*\* Mainland China is indicated as having an emerging economy, whereas Hong Kong is indicated as having an advanced economy



an emerging economy, and Hong Kong, SAR to have an advanced economy. One hundred sixty-six (88.3%) of the studies were conducted in countries with an advanced economy (including 10 studies from Hong Kong, China) and twenty-two studies (11.7%) were conducted in countries with an emerging economy (including 5 studies from mainland China).

*Rich.* Seventeen (70.8%) countries were classified as high-income countries (HIC) (See Table 3). These countries again include all Western countries, Japan, South Korea, and Taiwan. Two non-Western countries (8.3%) were classified as an upper middle-income country (South Africa, Malaysia), three (1.5%) as lower middle-income countries (Iran, the Philippines, Turkey), and India as a low-income country (4.2%). China was classified as a lower middle-income country, while Hong Kong SAR was classified as a high-income country (Credit Suisse, 2013). One hundred sixty-six (88.3%) of the studies were conducted in high-income countries (HICs) including 10 studies from Hong Kong, China. Twenty-two studies (11.7%) were conducted in low- and middle-income countries (LMICs). On an individual level, income was reported in only 14 studies from Western countries (7.4%) and three studies from non-Western countries (1.6%). In light of this limited number of studies, particularly in non-Western countries, we are unable to draw any meaningful conclusions.

#### **Democratic**

Fifteen (62.5%) countries were classified as full democracies and these include all Western countries (See Table 3). Six non-Western countries were either classified as flawed democracies (India, Malaysia, the Philippines, South Africa, South Korea, and Taiwan, in total 25.0%), two countries were authoritarian (China and Iran, in sum 8.3%). In light of recent developments, we have also classified Turkey as a flawed democracy (4.2%) (Kekic, 2008). One hundred fifty (79.8%) of the studies were conducted in countries with a full democracy, 13 (6.9%) in countries with flawed democracies, and 25 (13.3%) studies were conducted in countries with authoritarian regimes.

#### **General discussion**

The purpose of this study was to examine trends in the publication of RCTs in positive psychology and to determine to what extent positive psychology is currently Western-centric. Findings reveal an incremental growth in the number of RCTs on the effects of positive psychology, suggesting an increasing interest in research on the efficacy of PPIs. These findings are in line with a previous bibliometric analysis on the growth of positive psychology that included peer-reviewed journal articles, authored

books, edited books, book reviews, and dissertations (Schui & Krampen, 2010). Our analysis also showed that until recently positive psychology was indeed culturally biased since the large majority of the RCTs originated from Western countries. However, since 2014, we witness a sharp rise in publications from non-Western countries that now account for over one-third of the studies. This suggests that there is a growing trend in PPIs towards globalization. Analysis revealed that life review and spiritual activities were the most frequently used activities in non-Western countries. Activities that were used much less frequently compared to Western PPIs, were acts of kindness, mindfulness, best possible selves, and physical activities. In addition, we found that 24 interventions (58.5%) from non-Western studies were not culturally adapted. Some exercises are already highly adaptive and perhaps culture-free. Life review (positive reminiscence), for example, focuses on an individual's personal memories (Lau & Cheng, 2011) which are usually tied to a specific cultural and historical setting, and therefore, may be applied universally. In other studies, the interventions were based on a specific protocol that was developed in the West, for example, the Positive Psychotherapy (PPT) protocol. In 17 studies (41.5%) the interventions were culturally adapted, for example, by shifting the focus of the intervention from the individual to their relationships with family and community members. A study involving 2,070 participants in Hong Kong aimed to increase subjective well-being and health-related quality of life by fostering positive communication among families. This was done by conducting regular positive psychology activities such as positive reminiscence and expression of gratitude in cooking and dining with family members (Ho et al., 2016). Effic meditation practices can also be integrated into PPIs to ensure a better cultural fit. This was done in a study among 78 Hong Kong school teachers in which regular counting-your-blessings exercises were supplemented by Naikan-meditation-like questions, bringing the exercise in line with Confucian teachings of daily self-reflection (Chan, 2013). Studies from Iran have examined the effects of Islam-based PPIs where gratitude towards Allah is actively expressed, or strengths and virtues that are prominently featured in the Qur'an are practiced (Al-Seheel & Moor, 2016; Rouholamini, Kalantarkousheh, & Sharifi, 2016).

So why is it important to know how much research actually stems from non-Western countries? A frequently voiced concern by cross-cultural psychologists and the international research community is that science is an enterprise that predominantly consists of researchers from Western countries, and that findings from studies among Western populations are frequently generalized to populations in non-Western countries (Berry, 2013;

Sue, 1999). Traditional psychology is a science that was developed in the West and positive psychology is a movement that was initiated by American psychologists (Seligman & Csikszentmihalyi, 2000). At first glance, the roots of positive psychology seem to lie in the typical American tradition of 'positive' individualism (Díaz & González, 2012), propagating the idea that with enough effort and determination 'every underdog can become a millionaire.' However, our analysis tells a more complex story. In practice, many PPIs integrate knowledge and activities that are rooted in Eastern philosophies, in particular, Buddhism (Cassaniti, 2014; Levine, 2011; Walsh, 2015). We found that PPIs often include exercises in mindfulness and cultivate self-compassion and compassion for others. Although the aim of activities involving gratitude, practicing forgiveness and acts of kindness are targeted at improving individual well-being, many do so via establishing better relationships with others. While their goal may be individualistic, these activities work through collectivistic pathways. For example, writing a gratitude letter is an individual activity, but it is the interaction of an individual with the social environment during the accompanying gratitude visit that may contribute to the positive changes (Seligman, Steen, Park, & Peterson, 2005). Gratitude expression can also be practiced in the context of the family, as the previously mentioned cluster RCT among 2,070 participants in Hong Kong demonstrated (Ho et al., 2016). Other examples of community-based PPIs that focus on improving social relationships can be found in studies from South Africa (Eloff et al., 2014), China (Ho et al., 2016), and India (Leventhal et al., 2016, 2015). By unjustly discarding positive psychology as a Western-ethnocentric science, the legitimacy of the movement and its interventions are undermined. This may hamper the search for new and evidence-based methods to increase well-being among the global population.

With a growing focus on diversity in health care, we believe that it is important for positive psychologists to be aware of cultural differences. Cross-cultural studies have shown that Western-derived interventions combating mental health threats such as depression, posttraumatic stress disorders or suicidal behavior can conflict with local ideas of appropriate social interaction, norms regarding privacy, dignity, and family solidarity (Wickramage, 2006). While such interventions may be effective in Western countries, they may not be so in different cultural settings, or they may even be harmful (Ganesan, 2006). For example, emotional disclosure may increase anxiety and stress, lead to family conflict, or stigmatization (Christopher, Wendt, Marecek, & Goodman, 2014). While the concept of happiness across cultures has been studied widely (Diener & Suh, 2000; Joshani, 2014; Selin & Davey, 2012; Veenhoven,

2012) and there are several studies on cultural differences on expression of positive emotions (Leu, Wang, & Koo, 2011; Ong, Bergeman, Bisconti, & Wallace, 2006; Tugade & Fredrickson, 2004), a cross-cultural approach to positive psychology in general is still in its infancy.

The trend towards a growing number of studies evaluating the impact of PPIs in non-Western countries has an important implication. PPIs have the potential to partially overcome one of the largest obstacles that mental health care faces in low- and middle-income countries (LMICs), namely the so-called 'treatment gap'. Up to 75% of people in need of mental health care in LMICs do not receive any treatment because traditional psychological interventions are often costly and cannot be implemented on a large scale due to scarcity of mental health professionals (Kohn, Saxena, Levav, & Saraceno, 2004; Saraceno et al., 2007). PPIs, however, consist of activities that are relatively simple which allow PPIs to be conducted by local lay counselors who have a less formal education. In this way, PPIs can contribute to scaling-up of services for mental health care. The WHO describes scaling-up as planned efforts to increase the impact of health service innovations that are successfully tested in pilot or experimental projects to benefit more people and to foster policy and program development on a lasting basis (Simmons, Fajans, & Ghiron, 2007). Scaling-up is one of the primary concerns in Global Mental Health (Eaton et al., 2011; Meffert, Neylan, Chambers, & Verdelli, 2016). We do, however, emphasize that for the treatment of severe mental disorders highly skilled mental healthcare professionals are irreplaceable.

In addition to overcoming the treatment gap, the field of positive psychology has opened up ways to study constructs that are important in various religious and spiritual traditions (Falb & Pargament, 2014). Many PPIs have already integrated activities in the domain of spirituality and religion (Rye, Wade, Fleri, & Kidwell, 2013). In this way PPIs are suitable for non-Western populations, considering that these populations often subscribe to a two-tiered vision of the world (Taylor, 1985). In a two-tiered system a belief in a particular cosmological framework is the foundation for understanding life and giving meaning to one's everyday experiences, whereas in a one-tiered system the process of meaning giving is a personal, cognitive one (Christopher & Hickinbottom, 2008). Because of the inclusion of spiritual themes, PPIs can easily be adapted to different cultural settings, as demonstrated by Islamic based PPIs that were conducted in Iran (Al-Seheel & Moor, 2016; Rouholamini et al., 2016; Saeedi, Nasab, Zadeh, & Ebrahimi, 2015).



PPIs may also counter another reason why people with mental health problems in developing countries do not seek help, namely, the fear for stigmatization, either self-stigma or affiliated stigma (Abdullah & Brown, 2011; Hinton & Laroche, 2012; Mascayano, Armijo, & Yang, 2015). PPIs may bypass this problem because they are focused on enhancing positive thoughts, feelings, and behaviors (Sin & Lyubomirsky, 2009), and through the practice of gratitude, optimism, acts of kindness, meditation, and other activities that are not stigmatizing (Layous, Chancellor, Lyubomirsky, Wang, & Murali Dorais, 2011). The development of character strengths, such as social intelligence and kindness, may even contribute to reducing the stigmatization of those who seek help for mental health problems (Vertilova & Gibson, 2014). Finally, many positive psychology activities rely on the intuition and feelings of the participants, rather than analytical thinking. Perhaps PPIs are even more suitable and effective in non-Western countries than traditional psychological interventions such as psycho-therapy and cognitive behavioral therapy since non-Western populations have a more holistic view on life and an intuitive approach to thinking (Talhelm et al., 2015).

### Limitations

The contributions of this paper should be viewed in light of certain limitations. Firstly, we only included randomized controlled trials in this bibliometric analysis. RCTs are often cost intensive and complex (Korn & Freidlin, 2012), and therefore may be a lesser used research design in non-Western countries. For example, an article on the progress of positive psychology in India reported eight recent studies on the effects of PPIs in India (Ghosh & Deb, 2016), but none of the studies were RCTs. In our analyses we identified 265 articles published in the *Indian Journal of Positive Psychology*, but only two of the studies (0.3%) were RCTs. It is very likely that if we were to include other study designs, such as quasi-experimental and observational studies, the percentage of non-Western studies would increase. Secondly, our findings suggest that the so-called "10/90 gap" in positive psychology is improving. This term refers to the claim that only ten percent of global health research is spent on improving the conditions of people in low-income countries that account for 90 percent of the global population (Luchetti, 2014; Vidyasagar, 2006). Perhaps there is an overall trend towards global health equity, and the aforementioned gap in mental health research is closing in general. However, due to a paucity of recent research, we cannot compare our findings to data from bibliometric analyses or reviews outside the field of positive

psychology. There might also be regional differences within the same country that are not captured (Talhelm et al., 2015), but we believe our study still offers insights that are more nuanced than otherwise available in the field. A third limitation pertains to the term WEIRD itself. While this may be a catchy acronym, and it is clear what it intends to describe, the individual factors that form the acronym may not be equally informative. Furthermore, it can be argued that the distinction between Western and non-Western is incorrect, because what is considered 'western', depends on the geographical location of the observer. The distinction between high-income countries (HICs) and low- and middle-income countries (LMICs) may be more suitable. Another option is the distinction between countries with independent versus interdependent cultures (Shin & Lyubomirsky, 2017). Also, there is another factor that may lead to a generalization bias and which is not included in the acronym, namely gender. Our study found that 71.2% of the total study population is female. As mirrored in other reviews (e.g. Rao & Donaldson, 2015), this suggests a strong gender bias in terms of study participation.

### Recommendations

Firstly, we recommend research in the field of positive psychology from non-Western countries to continue to develop culturally sensitive PPIs. This can be done, for example, by matching the characteristics of the intervention and its intended population (La Roche & Lustig, 2010). Good examples of such an approach are the aforementioned Islam-based PPIs from Iran (Al-Seheel & Moor, 2016; Rouholamini et al., 2016; Saeedi et al., 2015) and the 'Happy Kitchen Family project' (Ho et al., 2016). The process of cultural adaptation of interventions has been widely described by leading authors in the field of cross-cultural psychology (Domenech Rodriguez & Bernal, 2012; Hinton & Jalal, 2014; Hinton & La Roche, 2013; Kirmayer, 2006). Whereas cultural psychiatry focuses on the cultural idioms of distress (Hinton & Lewis-Fernández, 2010), positive cross-cultural psychology could concentrate on discovering culturally salient indicators of well-being. For example, a qualitative study conducted in Suriname, South America found that the concept of *rukun* is associated with resilience among the Javanese ethnic group (Hendriks, Graafsma, Hassankhan, Bohlmeijer, & de Jong, 2017). *Rukun* can be described as living in harmony with one surrounding, which includes the spiritual world. Another example in the context of Suriname is *opo yeye*, a mental well-being model based on traditional knowledge of the *winti* belief system among Afro-Surinamese (Cairo, 2012). We recommend use of a mixed method approach (Teddlie & Tashakkori, 2011) to discover emic models and expressions

of well-being. Secondly, we recommend that organizations that strive to promote the dissemination of positive psychology should actively reach out to researchers in non-Western countries, for example, by attending regional psychology conferences in non-Western countries, or inviting leading cross-cultural researchers as speakers at positive psychology conferences. Finally, we recommend the examination of the efficacy of PPIs from non-Western countries, including a moderator analysis including WEIRD and other factors (for example the influence of gender, and if an intervention was culturally adapted or not).

### Conclusion

Although, positive psychology is still a science dominated by WEIRD populations, we see a strong trend towards a more global distribution of scientific productivity over the past four years. The ratio of non-Western to Western RCTs has dropped from 1:13 during the period from 1998 to 2012, to an average of 1:2.6 over the past four years, with China and Iran now in the top five of countries that produce the most RCT publications in the field of positive psychology. Although the majority of the studies on positive psychology is still from Western countries, there is much promise of positive psychology expanding globally.

### Disclosure statement

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**Задание 2. Выполните данное задание на русском языке. Прочитайте кейс. Опишите, какие исследовательские (эмпирические) методы и теоретические подходы психологии личности и позитивной психологии вы могли бы применить в данном случае? Каковы возможные причины описанной проблемы? Предложите свои рекомендации для директора компании и руководителя отдела оценки и развития персонала. Рекомендуемое время выполнения данного задания — 60 мин.**

### **Кейс**

В научную лабораторию обратился директор крупной строительной компании с просьбой провести исследование мотивации у работников. По мнению директора, ряд филиалов компании не проявляют должного уровня ответственности, в то время как другие достигают нужных результатов и проявляют креативность в решении сложных региональных вопросов. Тренинговые мероприятия по сплочению коллективов филиалов, предложенные консалтинговой компанией в предыдущий период, не привели к нужным изменениям, а в некоторых случаях имели обратный эффект. Директор компании и руководитель отдела оценки и развития персонала хотят получить объективную информацию от экспертов-исследователей, чтобы составить адекватную программу развития компании.

### **Трек 4. Прикладная социальная психология**

**1. Read the article and answer questions below. Answers should be given in English (30 points).**

#### **What Leads to Cultural Intelligence?**

Kerri Anne Crowne, Widener University

#### **Abstract**

The ability to interact effectively in multiple cultures is not a skill possessed by all; yet, it is becoming more important in today's global business world. Recently, this skill has been labeled cultural intelligence (CQ), and has caught the attention of business leaders and researchers alike. While previous studies have examined potential outcomes of cultural intelligence, possible antecedents are examined herein. This investigation generates some insight regarding the impact of cultural exposure on CQ, as well as developing an understanding of how the depth of cultural exposure influences a person's cultural intelligence. Findings indicate that certain types of exposures to other cultures (such as education abroad and employment abroad) and the level of exposure from these experiences increases cultural intelligence. These findings are critical for multinational firms as managers hire, promote, train, and prepare employees for international assignments. Additionally, some have discussed how cultural intelligence is a critical skill for global business leaders, and it seems likely that CQ will become increasingly important due to the rise of diversity in the workforce.



## 1. What is cultural intelligence?

It is often easy to see when someone makes a cultural blunder. For instance, during a business meeting at the Paris location of a United States multinational company, a visiting Turkish employee used an aggressive tone in his attempt to discuss the financial status of the company with U.S. and French executives. The company had been performing poorly over the past few months and the employee not only highlighted the problem, but also criticized the executives who were his superiors. What he failed to recognize during this interaction was that he not only insulted the executives by his tone and aggressiveness, but also

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embarrassed himself and them. He believed that he was making a positive impression on those at the meeting via his knowledge of the company; yet, his difficulty adjusting to the cultural setting and inability to interpret the cultural cues present actually created a negative impression. The situation became uncomfortable for the other people at the meeting. What could have been a productive dialog about the financial status of the company developed into an argumentative session, which ended abruptly without resolution.

In another instance, during a meeting with people from all over the world at a German institution, an individual from the United States was eating an apple and drinking a large bottle of water while loudly discussing why she believed it was unfair that

she could not rollerblade in the bike lane in Germany. She could not seem to understand why the Germans were so offended by her actions, and during the meeting she did not recognize how her current behaviors of eating, drinking, and conversing loudly were making those from other countries uncomfortable. Throughout the interaction, she failed to interpret the cultural cues others from around the world were displaying; later, she stated how surprised she was at her difficulty adjusting to life in Germany.

In both of these cases, the subjects were unaware of the cultural cues being conveyed to them. Each had problems adjusting to their new cultural setting; however, other individuals were able to make the adjustment. How is it that some individuals are more successful than others in a cross-cultural business situation? How can some people travel easily from country to country and effectively conduct business, while others may only be effective in a few countries or completely ineffective outside their home country?

The ability to interact effectively in multiple cultures has recently been labeled *cultural intelligence* (CQ). It is defined as a "multifaceted competency consisting of cultural *knowledge*, the practice of *mindfulness*, and the repertoire of *behavioral skills*" (Thomas & Inkson, 2004, pp. 182-183, italics in the original). CQ is a capability that allows individuals to understand and act appropriately across a wide range of cultures (Thomas, 2006). It is thought to be a "culture-free construct that applies across specific cultural circumstances" (Ng & Earley, 2006, p. 10). It is a person's capability to adjust to diverse cultural situations (Ang, Van Dyne, & Koh, 2006; Earley & Ang, 2003) and effectively adapt to various cultural settings (Ng & Earley, 2006). It improves understanding in cross-cultural interactions (Earley, 2002; Sharma & Mulka, 1993). Peterson (2004) stated that CQ "is the ability to engage in a set of behaviors that uses skills (i.e., language or interpersonal skills) and qualities (e.g., tolerance for ambiguity, flexibility) that are tuned appropriately to the culture-based values and attitudes of the people with whom one interacts" (p. 89). In order to be culturally intelligent, an individual needs to know how to suspend judgment of a situation until multiple cues can be assessed, as well as integrate and understand the knowledge gained from the situation (Triandis, 2006). It is thought that individuals with a high level of CQ have "a strong mastery and sense of emotional display and physical presence" (Earley, Ang, & Tan, 2006, p. 34). Researchers of cultural intelligence are seeking to understand why some individuals are more effective than others in adapting to new cultural settings

(Ng & Earley, 2006). Determining what contributes to this ability, which is grounded in multiple intelligence theory (Alon & Higgins, 2005; Ang, Van Dyne, Yee, & Koh, 2004; Earley & Ang, 2003), is a crucial question.

CQ is composed of four parts: meta-cognition, cognition, motivation, and behavior. High CQ individuals use all four in unison (Ang et al., 2004; Ang et al., 2006; Earley & Peterson, 2004; Ng & Earley, 2006). *Meta-cognition* is defined as an individual's knowledge or control over cognitions that leads to deep information processing (Ang et al., 2004). It is concentrated in the ability to process information and the knowledge of processing it (Earley & Ang, 2003), as well as the individual's motives, goals, emotions, and external stimuli (Thomas, 2006). It is not sufficient to simply know oneself to obtain high CQ; individuals must be able to be flexible in their self-concept, and have the ability to integrate new components into their self-concept (Earley & Ang, 2003).

*Cognition* refers to using knowledge of self, the social environment, and information processing (Earley & Ang, 2003); with regard to CQ, it involves the general knowledge about the structures of a culture (Ang et al., 2006; Ng & Earley, 2006). It is information gained from experience and education that involves specific norms, practices, and conventions, including universal facets of culture as well as culture-specific differences (Ang et al., 2004).

The *motivation* aspect of CQ involves a person's interest in learning and functioning in cross-cultural situations (Ang et al., 2004; Ang et al., 2006). This facet of CQ includes three primary motivators: enhancement, or wanting to feel good about oneself; growth, or wanting to challenge and improve oneself; and continuity, or the desire for continuity and predictability in one's life (Earley et al., 2006). This component directs and motivates an individual's adaptation to a new cultural setting, and it can be broken down into enhancement, efficacy, and consistency (Earley & Ang, 2003; Ng & Earley, 2006).

The final facet of CQ is *behavior*, or the action aspect of the construct (Earley et al., 2006). It includes a person's ability to exhibit the appropriate verbal and non-verbal behaviors when interacting with others from a different cultural background (Ang et al., 2004; Ang et al., 2006; Ng & Earley, 2006), and to generally interact competently with individuals from diverse backgrounds (Thomas, 2006). This may also include the inhibition of displaying certain behaviors (Earley & Ang, 2003), and the recognition that not interacting may be appropriate (Thomas, 2006).

Currently, no information exists regarding what leads to higher levels of CQ. Each of these aspects of



CQ would be essential to individuals who are working with people from other cultures. It is crucial, therefore, for managers to understand what the antecedents to CQ are, in order to incorporate this knowledge into their global business plans.

Understanding CQ will provide some insight for organizational leaders as they select employees for international assignments, such as expatriate positions which occur when an individual lives and works outside his or her country of citizenship (Carpenter, Sanders, & Gregersen, 2001; Inkson, Arthur, Pringle, & Barry, 1997; Reuber & Fischer, 1997; Sambharya, 1996; Takeuchi, Tesluk, Yun, & Lepak, 2005). These assignments, which are used to develop future organizational leaders and global managers (Baruch, 2002; Lazarova & Caligiuri, 2001; Luthans & Farner, 2002), are important when international experience is considered a critical component of firm strategy (Yan, Guorong, & Hall, 2002). Yet, they are costly for firms (Birdseye & Hill, 1995; Krell, 2005; McNulty & Tharenou, 2004; Stroh, Gregersen, & Black, 2000), and even more costly when the employee fails the assignment (Ashamalla, 1998; Johnson, Lenartowicz, & Apud, 2006). Despite the costs, multinational firms believe the increasing globalization of trade, commerce, and capital necessitates transferring individuals to foreign subsidiaries for assignments (Forster, 1997). Sending the right individual, meaning an employee who can be effective and successful in a foreign country, is critical. It has recently been suggested that aspects of CQ are antecedents to cross-cultural competence which may influence success or failures in international business (Johnson et al., 2006). Therefore, firms need to understand what could lead an employee to have a higher CQ, which in turn should lead to more effectiveness while abroad.

Since no information exists discussing what leads to increasing cultural intelligence and what contributes to higher levels of each facet of CQ, some primary questions arise: What leads to higher levels of cultural intelligence? What leads to higher levels of each of the facets of cultural intelligence?

## 2. The relationship between cultural exposure and cultural intelligence

Culture can be thought of as an onion, whereby the outer layers represent explicit products of the culture, the middle layer the norms and values, and the core the assumptions about existence (Trompenaars & Hampden-Turner, 1997). Exposure to various national cultures allows a person to become familiar with the products, norms, values, and assumptions of that culture. Cultural exposure, defined here as

experiences related to a region that aid in developing a familiarity with or understanding of the norms, values, and beliefs of that region, is likely to contribute to higher cultural intelligence. This is the first attempt to connect exposure to other cultures to cultural intelligence.

An individual can become familiar with the national culture through many means; for instance, by traveling, studying, reading, or viewing television programs. A person can also become familiar with another culture by interacting with someone from that culture. Yet, some cultural exposures are more significant than others. For example, some of the more significant means of gaining international understanding include "jaunts to overseas customers or suppliers, short visits to international divisions, and long-term emersion in a new host culture" (Yamazaki & Kayes, 2004, p. 362); organization-initiated expatriate work assignments or individually driven overseas work experience (Inkson et al., 1997); exposure to other cultures as a third-culture child, meaning an individual who as a youth accompanies his or her parent(s) on an overseas assignment (Selmer & Lam, 2004); and being a significant other of an expatriate.

While these are only a sampling of the experiences that may lead a person to develop a new cultural understanding, each is considered significant because the individual has actually experienced another culture by visiting it or residing in it. Therefore, developing an understanding of another culture is gained from experiences in that culture; this, it is thought, will eventually lead to a deeper understanding of a culture's norms. During long-term foreign stays—generally longer than a year (McNulty & Tharenou, 2004; Puccino, 2007)—a person can gain a fairly complex cultural understanding, via multiple cues provided by observing others and their reactions (Earley & Peterson, 2004). Although it is acknowledged that the depth of an individual's exposure may vary based on the experience he or she has had in another culture, research suggests that through extensive exposure to another culture an individual may develop a better understanding of that culture, especially since there appears to be a ubiquitous relationship between cultural influence and intercultural contact (Chen & Isa, 2003).

An individual learns from these experiences that intercultural encounters differ from normal experiences, in that they challenge a person's assumptions and thinking (Earley & Peterson, 2004). Exposure to other cultures allows individuals to "learn to select and apply the appropriate tools, adapting them when necessary" (Johnson et al., 2006, p. 534). By interacting in a culture, an individual will be influenced by that culture, which will influence that



individual's level of knowledge and understanding about the culture, and how that differs from his or her own. Phillion (2002) found that an individual can learn much about appropriate behavior by observing and experiencing situations. When individuals go abroad, they learn what is and is not appropriate in their new context. This indicates that cultural exposure can positively impact developing a cultural understanding.

There are varying degrees of exposure. The level of an individual's exposure may be based on the amount of time spent outside an individual's country of citizenship; on whether the time spent was in one or more countries; whether the countries visited were culturally distinct from each other or the person's native country; and the extent to which an individual chooses to experience the local culture during a visit. Cultural exposure is therefore multidimensional, and entails many potential components.

### 3. The study

In this study, the initial investigation examined whether a person had any type of exposure abroad—including work, education, vacation, or other experiences (e.g., missionary work or military experience) — versus not having any. The second level of analysis examined those who had experiences abroad: Did the depth of the experience, measured by the number of countries visited, influence that individual's CQ? It was anticipated that being exposed to other cultures not only influenced cultural intelligence, but also that the depth of exposure influenced CQ. The different types of exposure examined are identified in the oval in Figure 1. It was expected that

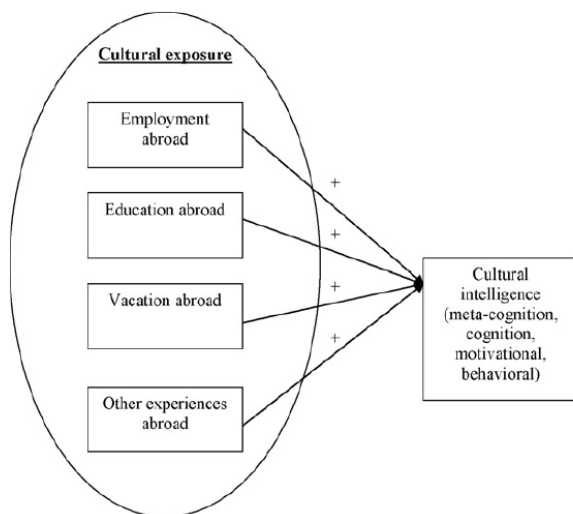


Figure 1. Possible antecedents of cultural intelligence

each type increased an individual's level of CQ. The Appendix provides the details of sampling. Since little information exists on cultural intelligence, the research conducted was exploratory. Specifically, various types of exposures and the depth of exposures were examined to determine if they influenced an individual's level of cultural intelligence.

## 4. Exposures that impact CQ

### 4.1. Individuals who have been abroad have higher levels of cultural intelligence

The first analysis (Table 1) examined those who had been abroad for various reasons, versus those who had not. In general, those who had been abroad for employment and education were found to have higher levels of CQ. Other types of exposure, such as vacationing abroad, did not increase an individual's level of CQ.

This analysis also uncovered one variable not related to cultural exposure, but which had an impact on total CQ: simply being currently employed. This may have occurred because employment can provide the opportunity for individuals to be exposed to other cultures through other means, such as working with people from different cultures, which is an experience that was not assessed here.

Next, each of the aspects of CQ (meta-cognition, cognition, motivational, and behavioral) were examined to determine which exposure variables influence them. Participants who had experienced education and employment abroad showed higher levels of meta-cognitive CQ. Education abroad also generated higher levels of cognitive, motivational,

Table 1. Significant variables for each analysis

	Analysis 1: Cultural exposure in binary form
Total CQ	Employment Employment abroad Education abroad
Meta-cognitive CQ	Employment abroad Education abroad
Cognitive CQ	Education abroad
Motivational CQ	Education abroad
Behavioral CQ	Education level Living outside country of citizenship* Part-time student status* Employment Education abroad

\* Indicates a negative relationship.

and behavioral CQ. Therefore, the findings indicate that certain types of cultural exposures also impact the facets of CQ.

As with the previous analysis, some non-exposure variables were examined to see if they influenced the components of CQ. The only facet affected by any of the non-exposure variables was behavioral CQ. It was higher in those who were currently employed, a result similar to that mentioned in the previous analysis. Additionally, those with higher levels of education showed higher levels of this aspect of CQ. This may be because more education can provide more opportunities to interact with individuals from different cultures; therefore, these individuals may be aware of how necessary it is to modify their behavior during cross-cultural interactions. Curiously, behavioral CQ was negatively affected by currently living outside an individual's country of citizenship. This may be related to an experience the participant recently had in their host culture, such as an experience of culture shock, leading an individual to question his or her ability to act appropriately in another culture.

Being a part-time student also negatively affected behavioral CQ, which is an interesting finding. Part-time students tend to be non-traditional students who are often older than the typical college-aged student. It is possible that those who are older have had more experience interacting with individuals who are not from their home culture, and so are aware of problems that have developed in these interactions. As a result, they may doubt their ability to interact effectively with others, which will translate into lower behavioral CQ. Table 1 includes a summary of the findings.

#### 4.2. The depth of exposure increases cultural intelligence

The second analysis (Table 2) looked at the depth of exposure to other cultures, in order to provide a deeper understanding of how the extent of an individual's exposure impacts cultural intelligence. Each participant was asked to indicate the countries they had visited in each category. Then, the total number of countries visited was used to determine the depth of the individual's experience. Overall, those who had visited more countries for employment and education had higher levels of CQ. Whether an individual was currently employed (a non-exposure variable) also continued to have a positive impact on total CQ scores.

The meta-cognitive CQ tended to be higher in those who had visited more countries for employment, and was also higher for those who were U.S. citizens. This is a fascinating finding, considering that this did not impact CQ in Analysis 1. While U.S. citizens are sometimes criticized for not being able to adapt well in other cultures, it appears that—at least, in this study—among those who have been abroad, more trips to foreign countries have increased their ability to process cultural knowledge. Cognitive CQ and behavioral CQ were both higher in individuals who had made more visits to foreign countries for employment and education. Motivational CQ provided different results. It was higher in individuals who had visited more countries for vacation and other purposes, which was the first time these variables had an impact on any aspect of CQ. Behavioral CQ was also higher for those who were currently employed. Table 2 shows a summary of the findings.

**Table 2.** Significant variables for each analysis

	Analysis 2: Cultural exposure measured by number of countries visited
Total CQ	Employment Number of countries visited for employment Number of countries visited for education
Meta-cognitive CQ	Number of countries visited for employment U.S. citizenship*
Cognitive CQ	Number of countries visited for employment Number of countries visited for education
Motivational CQ	Number of countries visited for vacation Number of countries visited for other purposes
Behavioral CQ	Employment Number of countries visited for employment Number of countries visited for education

\* Indicates a negative relationship.



### 4.3. Study summary

Many have witnessed the cultural blunders of others, such as the recent incident where actor Richard Gere kissed the celebrity Shilpa Shetty at a benefit in India, setting off protests. This public cultural mistake showed how some people are unaware of how to act appropriately in other cultures, while other people do not commonly make those mistakes. This study attempted to investigate what leads an individual to have higher levels of cultural intelligence.

No one can deny that rapid globalization is occurring, and that the skills of being culturally intelligent are useful not only to those who travel abroad, but also to every individual in the workplace. While some workers may never work outside their country of citizenship, many will interact with customers, clients, suppliers, and co-workers who are themselves outside their home country. As such, it is important for organizations to understand that some types of exposure to other cultures increase cultural intelligence and the underlying components of CQ. Specifically, those who had been abroad for employment and education demonstrated more CQ than those who had been abroad just for vacation or other reasons. Additionally, an awareness of how the depth of the exposure influences CQ is also critical. The number of countries an individual had visited for education and employment had a significant influence on a person's level of CQ. On the other hand, the number of countries an individual had visited for vacation or other purposes did not impact total CQ.

## 5. Suggestions for managers of multinational firms

Cultural intelligence has only recently been identified as important to multinational organizations. Some researchers suggest that aspects of CQ will lead to cross-cultural competence, which should influence the success of international business (Johnson et al., 2006). There are several areas in which developing an understanding of what leads to higher levels of CQ may have a positive influence on firms. In the increasingly global workplace, sensitivity to the cultures of others should facilitate conducting business. Therefore, it may be important for firms to consider the CQ of all their employees. The following sections will discuss how these findings relate to education and internships, training, expatriation, and global leadership.

### 5.1. Education and internships

Research for this article showed that study abroad seems to have an impact on total CQ, as well as most of the underlying components of CQ. While study abroad is on the rise—in 2004, over 200,600 U.S. students went abroad for education (McMurtrie, 2006)—firms may want to consider giving additional support for study abroad programs at universities, in order to encourage more students to take advantage of these opportunities. Organizations may choose to partner with universities in the form of providing study abroad internships and scholarships, either at the undergraduate or graduate level. The internships could be used as a way of screening and training potential employees, similar to how many accounting firms often use internships as a way to screen prospective candidates, in some cases even before they enter their last year of college. Some firms already use such globally-focused programs, but more organizations need to initiate them so a greater cultural understanding can be developed in the workplace. Scholarships may provide an opportunity for individuals who would not normally be in a financial position to consider studying abroad to take advantage of the programs at their universities, thereby increasing the pool of future employees who are high in CQ.

It has been found that U.S. students who studied abroad have a greater global perspective and greater international career aspirations (Sharma & Mulka, 1993). Moreover, those who have been educated abroad were found to be more likely at some point to pursue international careers (Norris & Gillespie, 2005), or to seek work at global companies (Opper, 1991). By creating a larger pool of candidates who already have high levels of CQ, global companies can build the skills of their future workforce and increase the likelihood that these globally-minded individuals will seek employment at their firms.

### 5.2. Training

Some have suggested that firms do not prepare individuals enough for international assignments (Johnson et al., 2006); yet, training has been identified as one of the key activities that will contribute to expatriate return on investment (McNulty & Tharenou, 2004). Therefore, it is important for organizations to determine how to appropriately train individuals for international assignments. Since education abroad seems to impact CQ at various levels, it is possible that firms should consider training individuals in the foreign countries as opposed to their home country. This approach may be useful not



only for those who are expatriates, but also for those who interact with individuals from other countries as part of their work.

Additionally, it is possible that individuals who have had multiple vacation experiences abroad, and who are therefore probably high in motivational CQ, would like to receive additional training on interacting effectively in other cultures. Organizations could target training programs to them, and design the programs to enhance overall CQ by using their vacationing experiences abroad as the foundation to build on their cultural knowledge. It may be necessary to tailor training programs on CQ to fit the differing levels of cultural understanding that employees have.

### 5.3. Expatriation

Selecting individuals for expatriate assignments is often a difficult task; yet, it is thought to be a key aspect of the return on investment in an international assignment (McNulty & Tharenou, 2004). Firms should consider examining employees' CQ level prior to sending them abroad, which should help to minimize some of the common cultural issues that often occur during these assignments. Understanding what can increase CQ will aid organizations during this process, and allow organizations to develop more successful expatriates. Findings of this study indicate that multinational organizations should consider hiring individuals with previous international exposure, specifically individuals who have worked or studied abroad. Firms should examine the number of experiences individuals have had abroad as a proxy for the depth of their exposure, which may be particularly useful when considering multiple candidates for a position. It may also be important for managers to look at individuals who have had several vacationing experiences abroad, because their desire to learn about other cultures is high, as indicated by the research showing that these participants have a higher level of motivational CQ. These individuals could also be successful expatriates if they are properly trained regarding how the work experience abroad will differ from vacation experiences abroad.

It has also been indicated that organizations are using technology to interact with individuals in other countries, rather than sending people (Krell, 2005; Solomon, 2000). Yet, the findings here suggest that being exposed to other cultures through visits has a positive influence on cultural intelligence, providing additional support for previous studies that found many non-financial benefits to long-term international assignments (McNulty & Tharenou, 2004). Firms may want to reevaluate their decisions

to rely solely upon technology to interact outside their home country. Doing this will not help their employees increase their CQ, which may generate problems in the long run because managers who interact with individuals in other countries only through technology may be less likely to accurately understand and interpret cultural cues being displayed by those outside their culture. Relying upon technology alone may limit a person's ability to interpret cues, including body language and tone. Moreover, this can create a limited understanding of the other culture, which may result in ineffective interactions.

For example, managers in a small U.S.-based financial company that had a foreign office in Great Britain would often become frustrated during their interactions with individuals in the British office. It was not until a few managers were sent for a 6-month stay in the foreign office that a new understanding of the British culture developed, which alleviated some of the past frustration. At another firm, a U.S. manager believed he had received agreement on the timetable for a project because of a yes response from a Japanese manager. He did not realize this answer did not necessarily indicate agreement by the Japanese manager, so he could not understand later why the project was not proceeding as previously scheduled. Each of these examples highlights how interactions in other cultures are likely to lead to developing a better cultural understanding than relying solely upon technology; therefore, these findings support continued expatriation of workers and sending individuals on foreign assignments, despite the costs.

### 5.4. Global leadership

Global leadership skills have become increasingly important in the dynamic work environment, and it has been suggested that cultural intelligence can even lead to developing global leadership success (Alon & Higgins, 2005). As firms prepare employees to assume global leadership positions, they should not only train them, but also send them on foreign assignments to be exposed to other cultures. If a firm develops CQ skills during internships, training, and expatriation, then successful global leaders should ultimately be developed. In global organizations high levels of CQ are likely to influence the success of global leadership, so firms should consider individuals who have had multiple global assignments and some education abroad. Even if a leader does not intend to leave his or her home country, selecting the appropriate person to interact with foreign subsidiaries should have a positive effect on the organization.

### **Questions to answer:**

1. Please explain how cultural intelligence (CQ – total and by components) helps to interact successfully in multicultural contexts?
2. Two foreign students at the university start their studies. For Tom it is already the third trip on an international student exchange program, and for Jerry it is his first experience abroad. Which one of them will adapt better to new circumstances? Please explain why, using the theoretical grounds provided by the article.
3. Try to identify the factors that influence the development of cultural intelligence. Please reflect on your personal experiences and demonstrate how these factors contribute to all components of CQ. If you cannot think of such experiences, please use some case from a movie, book, another person etc.
4. Please think of the ways to increase CQ in a university's multicultural environment (except for the general ones that are used in the article).
5. Can you think of a study involving one of the components of CQ described in the article? Try to come up with your own research question that could be checked empirically and formulate a hypothesis with the variables that you would study.

### **2. Case study (20 points).**

**As a psychologist, please, comment on this case.**

- 1) **Describe and explain what are the main problems and challenges Advik has faced.**
- 2) **Explain why a misunderstanding occurred and what is the reason for the low effectiveness of Advik's team?**
- 3) **Create a set of possible solutions which can help Advik to cope with the problem in the most effective way.**
- 4) **What preliminary preparation or instructions (before going to Algeria) could have helped Advik and other foreigners to avoid the difficulties described in the case? Which psychological theories and concepts do these instructions or preparation programs should rely on?**

**Please, use social psychological theories in your response. Try to be concise and avoid journalism and stereotypes in your analysis. Note that your response should be given in English.**

Advik is an Indian immigrant who works for a multinational German engineering company. After working in a few international projects in countries like South Korea, Russia, Lithuania and Spain, his company deputed him to work at a gas-based power station in Algeria. He was a team leader and was responsible for commissioning of gas turbine and therefore managed a team of engineers and workers who were mostly Algerians. No clear instructions were given to him regarding how to manage the intercultural differences he would encounter. His new boss was an Egyptian and two of his other colleagues were a German and a fellow Indian; but all his subordinates and most of the workers were Algerians and for many it was their first experience working with foreigners.

Advik was regarded as a very gentle and polite boss who respected his subordinates and always welcomed their ideas and remarks. He strongly believed in working as per procedures and protocols. Here he applied the same leadership style. However, under his supervision, the Algerian engineers didn't fulfill work specifications and didn't care much about contractual requirements. He talked about this situation with his Egyptian boss, who advised him that Algerians were generally a lazy people and wouldn't work unless he were strict. Advik also

notes that the Algerian engineers treated the workers very roughly. They gave orders in a very unfriendly way and shouted at them if they didn't do work adequately. Advik wasn't very satisfied with the reply and continued with his egalitarian management style. He felt apprehensive about being strict with natives of a foreign land. He held a meeting with his team and asked them to share their ideas about the project and the milestones to be achieved. He was surprised to see everyone silent in the meeting. However, his decisions were supported by everyone without any questions. In all the subsequent meetings, the same model repeated. Nobody seemed to take any initiative and expected instructions to come only from the team leader. The plans formulated in the meetings weren't properly carried out by the team however. This made the Egyptian boss furious.

## **Критерии оценивания**

### **Критерии оценивания задач инвариантной части**

1. Полнота ответа
2. Понимание базовых принципов организации научного исследования
3. Оригинальность и научная новизна предлагаемых идей
4. Академичность текста
5. Логичность и последовательность изложения

### **Критерии оценивания задач вариативной части**

#### **1. Трек «Когнитивные науки и технологии»**

Evaluation Criteria

**Task 1** (criteria above should be summed together for the final assessment) Max - 25 points.  
**Create an Abstract** (paper is presented, they need to prepare an abstract)

*Your task is to compose an abstract of 200-250 words. The abstract should include (a) the motivation of the study, (b) the main hypothesis, (c) key aspects of the experimental design, (d) main findings and (e) conclusions.*

1. Formulation of the research problem.
2. Description of the key experimental procedures.
3. Description of the main results.
4. Theoretical interpretation of the results.
5. The scientific style, the adequacy of the use of terminology, conciseness of presentation.

**Task 2** (criteria above should be summed together for the final assessment) Max - 25 points  
**Statistics**

*Provide definitions of statistical terms and discuss existing data by formulating and by solving equations.*

1. Validity of explanation of the definitions.
2. Clarity of description of the statistical problem.
3. Validity of formulation of equations addressing the statistical problem.
4. Arithmetical correctness of the equations.
5. The scientific style, the adequacy of the use of terminology, conciseness of presentation.

## **2. Трек «Консультативная психология. Персонология»**

1. Полнота ответа
2. Академичность текста, владение психологическим тезаурусом, корректное использование понятий
3. Опора на релевантные психологические, философские и культурные тексты, ссылки на соответствующих авторов теорий и концепций, корректное использование теорий в аналитике.
4. Точность интерпретаций, чувствительность к феноменам, способность применять релевантные психологические модели в аналитике случаев и разработке конкретных тем
5. Логичность и последовательность изложения идей
6. Наличие обоснованной авторской позиции, оригинальность идей.

## **3. Трек «Позитивная психология»**

**Задание 1.1.** Аннотация отражает основные тезисы статьи, отсутствуют фактические ошибки, термины верно переведены на русский язык.

**Задание 1.2.** Поставлена проблема исследования. Описаны гипотезы и план исследования. Подобранные методы соответствуют исследовательским вопросам и операционализируют их. Описаны требования к выборке исследования. Описаны предполагаемые результаты. Предполагаемые результаты уточняют / компрометируют / верифицируют подход, описанный в статье.

**Задание 2.** Запрос переформулирован на языке измеряемых переменных. Разработан лонгитюдный дизайн исследования или исследование методом поперечных срезов. Для анализа ситуации предложены методы самоотчета, включенного наблюдения, интервью, сбор социологических и объективных данных. Указаны зависимые переменные. Обозначено прикладное значение исследования. Разработаны рекомендации, учитывающие различный уровень обобщения данных.

## **4. Трек «Прикладная социальная психология»**

### **Задание 1.**

1. Обоснованность, аргументированность, доказательность,
2. Конкретность и полнота ответа,
3. Умение анализировать научные тексты на английском языке, извлекая суть проблемы,
4. Умение применить социально-психологические теоретические знания для анализа социальных ситуаций и поведения людей в них,
5. Упоминание фамилий специалистов при анализе и ссылках на теории,
6. Умение свободно отвечать на вопросы не копируя буквально текст статьи,
7. Отсутствие фактических ошибок.

### **Задание 2.**

1. Наличие в ответе авторской позиции по рассматриваемой тематике,
2. Обоснованность, аргументированность, доказательность высказываемых положений и выводов автора,
3. Знание социально-психологической проблематики и терминологии,
4. Умение применять социально-психологические теории и инструменты к анализу реальных явлений,
5. Видение прикладных аспектов социально-психологических теорий,
6. Отсутствие в ответе элементов обыденного психологического знания и журнализмов,

7. Упоминание фамилий специалистов при анализе и ссылках на теории,
8. Отсутствие фактических ошибок.

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