Editorial

Can Psychological Assessment Contribute to a Better World?

Our Discipline's Contribution to the Sustainable Development Goals for 2030

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Several problematic topics[1] have been put forward by the United Nations (United Nations, 2013). Not addressing these critical issues will make the world a worse place to live in by 2030. Contributing to solving these difficult and concerning issues *is* a contribution to humankind – and all domains of science and practice are called to carry their weight, channeled through the Sustainable Developmental Goals (SDGs, see Table 1). In our world, where increasing complexity and instability (Di Fabio, 2017) may hamper the development of mankind, we wonder whether Psychology in general and Psychological Assessment, in particular, will remain more or less passive actors or become active game-changers in reshaping the planet as we know it. Personally, we are amazed at how a discipline that focuses (mostly) on human behavior has mostly ignored a challenge like this for so long.

Iliescu and Greiff (2019) recently pointed out that psychological testing has traditionally adhered to strong ethical principles, which puts the field in a good position for advising on sustainable development. In the same editorial, they also matched psychological testing with the UN "Global Issues Overview" and reached the conclusion that psychological assessment does not respond to great world problems (Iliescu & Greiff, 2019). Although Psychology, in general, is regarded as a hub science (Boyack, et al., 2005), the psychological assessment does not seem to have such visibility, and with respect to this matter, our discipline occupies a rather marginal space. The reasons for this lack of visibility may be diverse, ranging from a low number of assessment psychologists on the decision committees of international organizations to too little advocacy, but it may also simply mean that psychological assessment does not care much about these important world challenges.

Here, we argue that psychological assessment *can and should* be more actively involved, and we will show how it can actively contribute to achieving the SDGs. As psychological test developers, researchers, and users, we should not bury our heads in the sand. Because we understand fundamental aspects of human nature, we are capable of advancing hypotheses, measuring, and making robust predictions about human behavior with profound implications for planetary challenges.

In this context, we will focus on two main issues here, and then we will advance conclusions and some ideas to be further pursued by those interested.

(1) Psychology of sustainability or Psychology in sustainability? Choosing one or another is important for our discipline because they imply different approaches for the field of psychological assessment and in the case of "psychology in sustainability", a much broader scope. We have recently witnessed a revived interest in the so-called "psychology of sustainability" (Amel et al., 2017) and an increased interest in its teaching (Koger & Scott, 2016), as well as applications to organizational settings (Di Fabio, 2017). Most of this enthusiasm is focused on green psychology, especially on the study of attitudes toward the environment, the use of

[1]Poverty, hunger, lack of health and well-being, lack of education, gender equality, contaminated water, no sanitation, dirty energy, no decent work and economic growth, no industry and innovation, inequalities, unsustainable cities, irresponsible consumption, climate issues, life below water, life on land, conflicts, and lack of cooperation between parties.

Table 1. Can psychological assessment contribute to SDGs?

Sustainable development goal	Description[a]	Answer	
No poverty	Eradicating poverty in all its forms.	Unclear	Only one target could be led by psychological assessment.
No hunger	Ending all forms of hunger and malnutrition by 2030, making sure all people – especially children – have sufficient and nutritious food all year.	Unclear	In this SDG, psychological assessment could help other disciplines, but without direct intervention.
Good health and well-being	Good health is essential to sustainable development.	Yes	Psychological assessment can directly contribute to or even have a leading role in solving most of the targets.
Quality education	Achieving inclusive and quality education for all reaffirms the belief that education is one of the most powerful and proven vehicles for sustainable development.	Yes	Psychological assessment should take an active role in this SDG and all its targets.
Gender equality	Ending all discrimination against women and girls is not only a basic human right but is crucial for a sustainable future.	Yes	Our discipline can significantly contribute to half of the targets and is committed to this SDG.
Clean water and sanitation	Ensuring universal safe, and affordable drinking water involves reaching over 800 million people who lack basic services and improving accessibility and safety of services for over two billion.	Unclear	As in other SDGs, psychological assessment can help other disciplines achieve this SDG, but indirectly.
Affordable and clean energy	Expanding infrastructure and upgrading technology to provide clean and more efficient energy in all countries will encourage growth and help the environment.	Unclear	Like in the previous case, the role of psychological assessment in this discipline is accessory.
Decent work and economic growth	The SDGs promote sustained economic growth, higher levels of productivity, and technological innovation. Encouraging entrepreneurship and job creation are key to this, as are effective measures to eradicate forced labor, slavery, and human trafficking. With these targets in mind, the goal is to achieve full and productive employment, and decent work, for all women and men by 2030.	Yes	For many years, the psychological assessment had contributed to economic growth and decent work, even before the SDGs were published.
Industry, innovation, and infrastructure	Promoting sustainable industries, and investing in scientific research and innovation, are all important ways to facilitate sustainable development.	Yes	Like in the previous case, psychological assessment researchers and practitioners can significantly contribute to the achievement of this SDG.
Reduced inequalities	Improving the regulation and monitoring of financial markets and institutions, encouraging development assistance and foreign direct investment to regions where the need is greatest. Facilitating the safe migration and mobility of people is also key to bridging the widening divide.	Yes	Many of the targets of this SDG can be addressed by our discipline (see text).
Sustainable cities and communities	Making cities sustainable means creating career and business opportunities, safe and affordable housing, and building resilient societies and economies. It involves investment in public transport, creating green public spaces, and improving urban planning and management in participatory and inclusive ways.	Yes	Psychological assessment has already contributed to this SDG but still can significantly contribute to half of the targets.
Responsible consumption and production	Achieving economic growth and sustainable development requires that we urgently reduce our ecological footprint by changing the way we produce and consume goods and resources.	Yes	Our discipline has and continues to have a leading role in achieving this SDG by measuring attitudes and paving the way for a better intervention from other disciplines.
Climate action	Integrate disaster risk measures, sustainable natural resource management, and human security into national development strategies.	Yes	The discipline has contributed significantly to this SDG and has room to lead about half of the targets.
Life below water	Sustainably managing and protecting marine and coastal ecosystems from pollution, as well as addressing the impacts of ocean acidification.	No	There is little room for psychological assessment in this SDG, only helping other disciplines.

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Table 1. (Continued)

Sustainable development goal	Description[a]	Answer	
Life on land	Urgent action must be taken to reduce the loss of natural habitats and biodiversity, which are part of our common heritage, and support global food and water security, climate change mitigation and adaptation, and peace and security.	No	The same applies to life on land since it is focused on animal life.
Peace, justice, and strong institutions	To significantly reduce all forms of violence and work with governments and communities to end conflict and insecurity. Promoting the rule of law and human rights are key to this process, as is reducing the flow of illicit arms and strengthening the participation of developing countries in the institutions of global governance.	Yes	An important field within the psychological assessment is devoted to violence, aggression, and conflict. Therefore, the discipline is well positioned to tackle this SDG.
Partnerships for the goals	To enhance North-South and South-South cooperation by supporting national plans to achieve all the targets. Promoting international trade and helping developing countries increase their exports are all part of achieving a universal rules-based and equitable trading system that is fair and open and benefits all.	Yes	With respect to this SDG, psychological assessment could lead some tracks on technological cooperation and contribute to many others.

Notes. [a]Descriptions taken from: https://www.undp.org/sustainable-development-goals. Full description of the goals and the targets: https://www.undp.org/sustainable-development-goals.

renewables, or mobility patterns. All these applications are somehow restricted to the field of environmental psychology. However, we believe that global challenges also have to do with education, financial resources, demography, etc. We need human perceptions, motivations, values, abilities, or beliefs to be considered in order to comprehensively address sustainable development. We believe in a "psychology in sustainability", where psychological knowledge could be applied to a multitude of challenges.

(2) How can psychological assessment contribute to the SDGs? To the very best of our knowledge, hardly any article has addressed how psychological assessment could help improve the world within the next 10 years. Table 1 summarizes each of the SDGs and suggests whether the psychological assessment can have a leading role, can contribute, or should rather have a passive role. Briefly, in four out of 17 SDGs, psychological assessment can help other disciplines that take the lead in achieving these goals: no poverty, no hunger, clean water and sanitation, and affordable and clean energy. There are two goals in which psychological assessment, for obvious reasons (targets of these SDGs are very much focused on biological and geophysical aspects of sea and land), can contribute less in a meaningful way: life below water and life on land. With respect to the remaining eleven SDGs, psychological assessment can take the lead and significantly contribute to the successful achievement of these goals.

In fact, many of these goals require science to establish status assessment, process monitoring, and evaluation of implemented policies. This requires sound measurement, and psychological assessment has pioneered the development of measurement methods that are now implemented in many fields beyond psychology. Although psychology can directly contribute theories for addressing the goals, these theories, or the interventions based on them, cannot be evaluated without proper assessment or operationalization. We recently witnessed how questionable research practices (QRPs) have been put in the spotlight, but questionable measurement practices (QMPs: Flake & Fried, 2020) also exist and jeopardize findings on social change, possibly permitting the construction of a giant with feet of clay. Some examples of these QMPs that can result in misleading, unreliable findings are assessing *jingle-jangle* constructs, underreporting the properties of measurement tools, lack of transparency or unjustified decisions in modifying scales (e.g., dropping items or collapsing response categories), creating *ad hoc* measures that are not properly researched or standardized. Importantly, the principles of psychological assessment should inform the selection of leaders that will be driving and managing the change, allowing the best fit between this enormous task and person to be found. Hopefully, psychological assessment can help to produce robust findings on which change can be built. Some examples have already been implemented: the ITC guidelines for test translations have enabled cross-cultural comparisons (Bartram et al., 2018), and the ISO 10667 (International Organization for Standardization, 2020) norm, which sets international standards for testing in personnel selection, are two such cases.

Psychological assessment is one of the best-positioned subdisciplines in psychology to tackle these issues for a

number of reasons. It is transversal and serves nearly all psychological subdisciplines (from basic experimental psychology to applied social psychology or behavioral economics); it informs data-driven interventions, policies, and development; it facilitates the monitoring of implemented policies and makes corrective interventions, as well as follow-ups, possible. In fact, the psychological assessment may be regarded as the main contribution of psychology to the repertoire of scientific tools.

Below is a discussion of all SDGs and some empirical examples of how psychological assessment might contribute:

(1) *No poverty*. This goal envisions having no human being living with less than the US $1.25 a day. Although this mainly refers to economic conditions around poverty, some of the targets of this goal specifically address promoting resilience of the poor and those in vulnerable situations, including such contexts as natural disasters and interpersonal victimization, which is often associated with them (Becker-Blease et al., 2010). Importantly, there have been recent updates in the field of psychological assessment that can help in this endeavor. Cross-cultural common metrics of resilience are being developed to assess it and therefore compare different policy implementations (Anyan et al., 2020).

(2) *No hunger*. As in the previous goal, one could think that psychological assessment and hunger may not be very related. This goal aims at eradicating famine and hunger and meeting the nutritional needs of the most vulnerable by, amongst others, promoting sustainable agriculture and supporting small farmers. Working on this SDG from a psychological assessment perspective may range from developing sound tools for attitude measurement to keeping track of attitude change promotion toward more sustainable agriculture (Russell & Zepeda, 2008) to understanding the human factor in the commodity markets and their derivatives (Bakar & Chuiyi, 2016).

(3) *Good health and well-being*. This is perhaps one of the goals psychological assessment is very much aligned with. In this sense, psychological characteristics have been related to the spread of infectious diseases, such as AIDS or tuberculosis, in which researchers have used psychological assessment tools to test their hypotheses (Grossmann & Varnum, 2015; Hopkins & Reicher, 2015). These findings can be extended to the more recent COVID-19, where, for example, results from a working memory test have been related to compliance with social-distancing measures (Xie et al., 2020). All these results inform policies and would not have been possible without psychological assessment. But besides that, psychology has been useful in reducing the number of road accidents (Jornet-Gibert et al., 2013), substance abuse (Lazowski & Geary, 2019), or in explaining the role of individual characteristics in having good health and well-being (Diener et al., 1999; Roberts et al., 2007; Soto, 2019). Importantly, the psychological assessment provides the means to track such changes.

(4) *Quality education*. Psychological testing has a long-standing tradition in serving education, as has been recently put forward in this same journal (Sireci & Greiff, 2019), and although psychological assessment for educational purposes has sometimes been put under scrutiny for (possibly) favoring unfairness in school contexts, the evidence shows that proper educational measurement actually reduces biases and inequities (Eignor, 2001; Ferreira & Gignoux, 2014), and can be useful for improving numeracy and literacy (Grek, 2009).

(5) *Gender equality*. Women and men have the same rights. At the same time, there are some psychological differences between genders, and understanding these differences between men and women may help in reducing some of the inequalities that still exist between sexes (Reiss et al., 1996; Weisberg et al., 2011). For instance, one way of increasing the number of female vocations in STEM is by understanding the determinants of vocational interests (Ion et al., 2019). In addition, results from the psychological assessment can be used to predict sexual violence and therefore protect women against gender violence (SARA: Kropp & Hart, 2000).

(6) *Clean water and sanitation*. Despite the apparent distance between psychology and the goal of having clean water and sanitation, there is a strong contribution to be made in this context: the assessment of attitudes and behavior change may be especially relevant for achieving this goal, especially those related to such behaviors as water dumping and increasing water-use efficiency. Moreover, involving local communities in the improvement of water and its sanitation may be especially successful if mixed methods are used (Fiallo & Jacobson, 1995).

(7) *Affordable and clean energy*. In a similar vein, direct interventions or applications guided by psychological assessment are difficult to undertake in relation to affordable and clean energy. In this context, the most remarkable way psychology may contribute is by promoting and monitoring attitude change among consumers and the encouragement of active citizenship, public opinions and governments are pushed toward increased dependence on renewable energies (Russell & Zepeda, 2008; Strielkowski et al., 2019).

(8) *Decent work and economic growth.* Work and organizational psychology have been the prime fields for psychological assessment. In fact, economists (and Nobel prize winners among them) have long advocated for the regular inclusion of the assessment of psychological characteristics (soft skills) in the labor market (Heckman & Kautz, 2012) – because coupling these personal characteristics with the needs of the job position, then productivity increases and there might be an important monetary return (up to 4,000 Euros per person annually in Germany, Denissen et al., 2018). It is, therefore, of no surprise that principles of psychological assessment have found their way into international standards like ISO 10667. The contribution of assessment to this goal is not limited to work and organizational settings; it may also play a very important role in uncovering the factors that contribute the most to wage slavery or other forms of modern slavery (Pajón & Walsh, 2018), thus building toward the goal of attaining more decent work by 2030.

(9) *Industry, innovation, and infrastructure.* As in goals 6 and 7, the assessment of attitudes and behavior changes plays a major role. Calling for a more sustainable and resilient industry should be linked to reduced ratios of occupational accidents, and accident prevention is based on a better understanding of psychological factors related to stress and burnout or increased adherence to work regulations (Hofmann et al., 2017). Psychology should also play an important role in the promotion of financial education and entrepreneurship education for citizens – important competencies that would eventually lead to better integration of small-scaled industries into the global financial ecosystem (Dinç Aydemir & Aren, 2017). Moreover, some positive changes in developing sustainable industries can be achieved if psychological factors within local communities are taken into account (Matarrita-Cascante et al., 2010). Finally, finding the right person for the job at hand certainly contributes to sustainable industrial growth. Again, this is one of the hallmarks of psychological assessment.

(10) *Reduced inequalities.* Reducing inequalities within and among countries should also be an aim for psychologists worldwide. One way of doing this is by increasing the levels of financial education. Now that more than 5.2 billion people (making up roughly 67% of the world's population, see https://datareportal.com/global-digital-overview) have a smartphone, ambulatory assessment of financial education should be easier than ever, both taking advantage of and feeding this information to fintech applications that could personalize financial tips according to everyone's level of education (Arner et al., 2020). Although we have already raised this issue in goal 4, the use of standardized testing actually provides equal opportunities, creating a common ground for merit-based and less biased selection and promotion.

(11) *Sustainable cities and communities.* Environmental psychology has consistently taken an active role in disentangling the factors that contribute to sustainability, identity, and social cohesion (Uzzell et al., 2002). Fostering participation in urban planning is also a topic of special relevance in this sense. This and other psychological phenomena related to urban and landscape planning are very relevant in this context – for example, happiness is considered to be greater in natural environments, but we cannot discern it unless we are able to measure happiness (MacKerron & Mourato, 2013).

(12) *Responsible consumption and production.* Recycling is the key word in this goal, both for consuming and producing recycled goods. Much effort has been put forward from Psychology in general and psychological assessment, in particular, to understand which factors contribute to pro-environmental behavior and recycling behavior. Among them, perceived costs and benefits, moral and normative concerns, affect, contextual factors, and habits seem to stand out. Importantly, they are targets for psychological assessment (Steg & Vlek, 2009) and thus posterior intervention.

(13) *Climate action.* The most urgent challenge for our societies is climate change (IPCC, 2014). Although it seems to be from the point of view of scientific evidence and consensus beyond any reasonable doubt, some people still do not believe in its existence and consequences (Gifford, 2011). In fact, one of the major contributions of psychological assessment to sustainable development goals has been the application of measurement tools to inquire about people's understanding of climate change and allow international comparisons – as was done among others by the Intergovernmental Panel on Climate Change (Budescu et al., 2014). Other applications of psychological assessment in this regard have also emerged – for example, studies have shown that behavior management in case of natural disasters (flood, woodfires, etc.) benefits from the inclusion and assessment of psychological features in Agent-Based Models of such events (Medina et al., 2016).

(14) *Life below water.* The aim of this SDG is to clearly increase marine biodiversity. Overfishing could be related to attitudes to food, and changes in this can contribute to increased protection for sea life (Gullestad et al., 2013). Attitude and behavior change that will shift public opinion and pressure governments

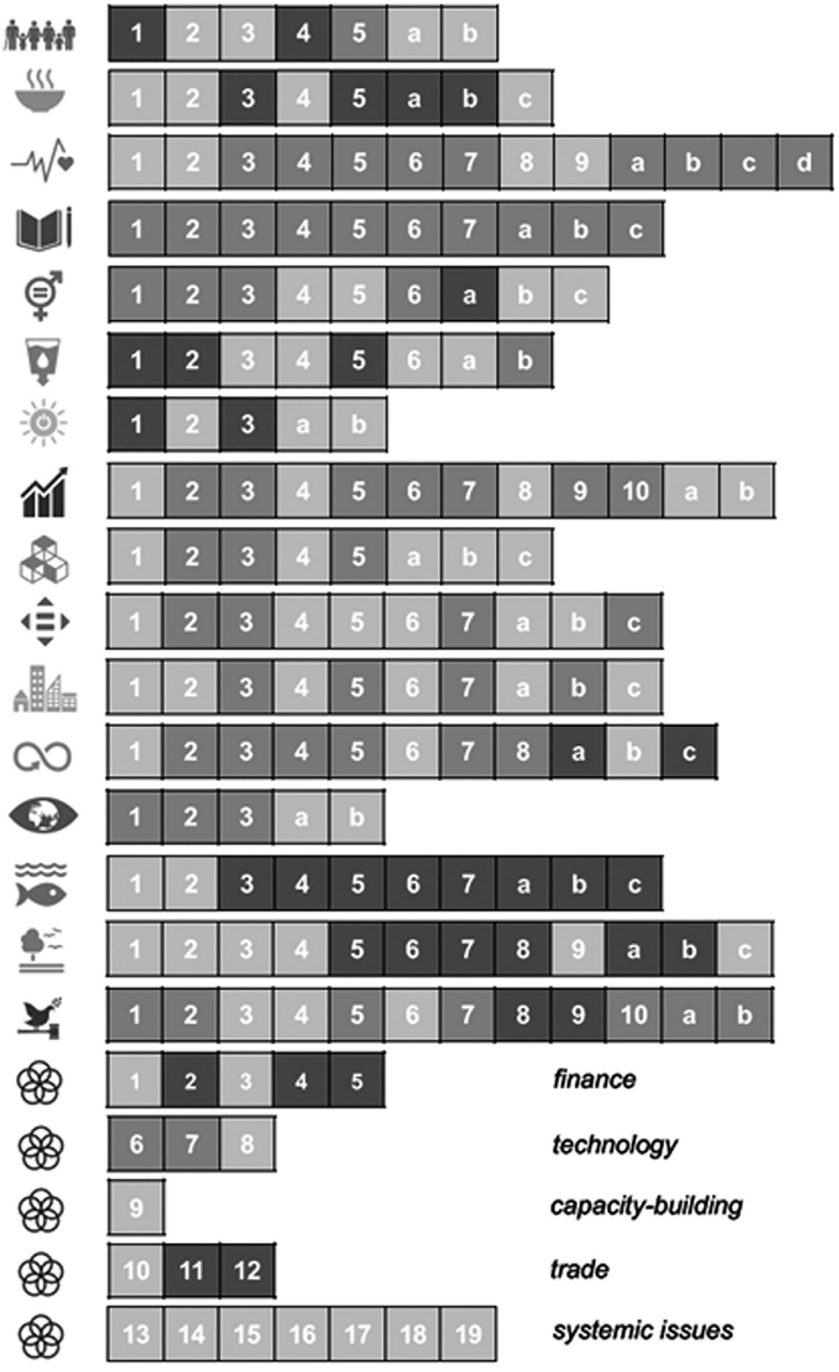

Figure 1. Targets of SDGs classified according to the type of contribution that psychological assessment can make. Icons refer to each specific SDG (e.g., the first corresponds to "No poverty"), numbers, and letters refer to specific targets within each SDG (e.g., 1.5 "build the resilience of the poor and those in vulnerable situations"). Further information on each SDG can be found here: https://sdgs.un.org/goals. The last goal (i.e., "Partnerships for the goals") includes several subgoals in key areas, with different targets within. Color note: Dark gray background = primary role; light gray background = secondary role; black background = little role.

are the only areas related to this goal in which psychological assessment may prove useful (Steg & Vlek, 2009).

(15) *Life on land.* Not much can be added with respect to this SDG compared to the previous one. The best cost-efficient way for psychology to help in this goal is by means of attitude and behavior change, especially with respect to food and biodiversity (de Boer & Aiking, 2021).

(16) *Peace, justice, and strong institutions.* Psychological assessment has contributed to the explanation of several factors underlying violence, abuse, and corruption. From measuring and comparing aggression across different cultures (Gallardo-Pujol et al., 2019) to uncovering the world prevalence of child sexual abuse (Pereda et al., 2009), psychological assessment has greatly strengthened the understanding of variables that hamper peace and justice and weaken institutions at several levels.

(17) *Partnerships for the goals.* Multicultural individuals that are able to easily navigate through different cultures

show greater ability to cooperate, thus overcoming barriers that prevent cooperation (Benet-Martínez, 2012). This statement would not have been possible without a psychological assessment. Measurement provides both the tools to assess multiculturalism and cooperation but also provides tools for other social sciences, such as sociology (Schwartz, 1992). International cooperation is also an area where assessment is a team player. Not only at the policy-making level or academic or research cooperation but also in the operations field. Organizations must create teams, coordinate with governments, motivate interested individuals, and, most importantly, align individuals to achieve collective goals (Goldgeier & Tetlock, 2001). And finally, and most importantly, this last SDG emphasizes the importance of developing statistical capacity-building measurement and science-informed decision-making. This is precisely one of the strongest points of psychological assessment. In this sense, there are some initiatives that aim at building cross-cultural, global measurements, such as the International Situations Project (Baranski et al., 2017, 2021; Guillaume et al., 2016; Lee et al., 2020).

In Figure 1, we tentatively provide a more detailed examination of each SDG. The picture is rather clear: in 36% (60) of the SDGs, psychological assessment can become the main driver for change, and in 44% (74) of the SDGs, it can make important contributions. Only 20% (35) of the SDGs psychological assessment might not be able to contribute much.

Environmental Psychology has traditionally been the crossroad between sustainability and Psychology, and in fact, it is true that environmental quality strongly depends on human behavior patterns (Steg & Vlek, 2009), but promoting pro-environmental attitudes (Tam & Milfont, 2020), or understanding how green and blue spaces promote psychological well-being is just looking at a small part of the picture. Psychological assessment can contribute to sustainability, especially by providing sound assessment tools in which change can be reliably captured.

Psychological assessment cuts across a number of subdisciplines and has numerous contact points with many other disciplines. Education, promoting well-being, gender issues, reducing inequalities, or making job environments a safer place are just a few examples of how this discipline can contribute to Sustainable Development Goals without becoming a new discipline or losing our essence. All in all, we strongly believe that Psychological Assessment in particular, but Psychology in general, should take a more active role in pushing mankind toward the SDGs. In 2030 the world will be worse if not all scientific disciplines contribute. Until now, very few countries have explicitly implemented psychological interventions in their SDG programs with robust assessment tools (Elkin & Katz, 2019). As we stated at the beginning, we know and understand, fundamental aspects of human nature. As psychological scientists, we can, and we already do, aim to contribute to the global network of disciplines tackling the biggest planetary challenges.

Finally, we publicly make a call for all researchers and practitioners in psychological assessment to contribute to this cause and fight for achieving the SDGs. Standing together to achieve the SDGs *must* include us and our area of expertise: psychological assessment.

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Conflict of Interest

The authors declare no conflict of interest

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