

Project Petroczi

Psychological aspects of the perception of legitimacy of anti-doping: Systematic review and thematic analysis of the doping literature

Legitimacy is the fundamental constituent of voluntary compliance with the law or with specific rules. From society's point of view, legitimacy is a property of an authority, institution or social arrangement based on beliefs about the appropriateness and fairness of what these entities represent (Plunket Tost, 2011; Tyler, 2010). Murphy, Tyler & Curtis (2009) expand this narrow definition and highlight the importance of legitimacy of rules themselves, not just the 'rulers'.

The legitimacy of anti-doping is built on the drive to preserve the integrity and spirit of sport to which doping is seen as being "fundamentally contrary" (WADA Anti-Doping Code 2015, p14). From the legal point of view, the legitimacy of anti-doping rules and procedures, which place considerable burden on the athletes, is determined by the soundness of the principles in whose name athletes are subjected to testing and sanctioning (Hard, 2010). Rules (WADA Anti-Doping Code, country specific legislations) and organisations (WADA, NADOs) are in place to establish system level legitimacy of anti-doping. However, contrary to social- and legal system level approaches, preventive anti-doping education targets individual athletes, and individuals in the athlete's entourage. Therefore it is vital to understand how legitimacy of anti-doping is perceived by those who are affected. Even to date with significantly increased research into doping and anti-doping, a considerable gap regarding legitimacy exists in the body of knowledge about doping behaviour.

Effective prevention is multifaceted. In anti-doping, it is equally important to create a pervasive anti-doping environment via influencing social norms and attitudes and directly addressing the reasons behind doping behaviour. The Athlete Learning Program about Health and Anti-Doping (ALPHA), which represent a new era in anti-doping education, serves this dual purpose. This interactive educational tool builds on the cumulated knowledge from social science research. It consists of eight sessions and features several novel elements, including video testimonials from elite athletes, extensive resources and points of references for many aspects of athletes' lives along with addressing reasons why some athletes may be tempted to use prohibited substances. Among the first six sessions of ALPHA, two are dedicated to medical and ethical reasons for avoiding doping. Altogether, ALPHA addresses the three fundamental aspects of anti-doping:

- (1) knowledge facilitates Code-compliance and prevents inadvertent doping;
- (2) ethical and health reasons are intended to form negative attitudes towards doping (and thus affects general motives). This - through impacting on a large number of individuals – helps to build a sustainable anti-doping culture in sport and strong legitimacy for anti-doping; and
- (3) the recognition of reasons for doping allows anti-doping to counteract these beliefs. Practical help is offered to encourage athletes to develop plans to avoid doping in a positive and proactive way that is meaningful for the athletes (Petróczi & Norman, in press).

Upon launching ALPHA, WADA noted that it recognizes the relation of legitimacy to athlete acceptance. This approach assumes that presenting the rationale behind the multiple processes involved in doping control will help athletes to see the anti-doping process as legitimate, and thus they are more likely to accept and comply with it (<https://www.wada-ama.org/en/media/news/2014-05/wada-launches-alpha-a-fresh-approach-to-anti-doping-elearning-for-athletes>). In fact, ALPHA influences the perceived legitimacy in two ways: First, one can argue that the moral reasoning module actually is not aimed at changing individual moral values but rather, it creates support for and/or reinforces the legitimacy of anti-doping and thus builds legitimacy of anti-doping rules. The medical reasons for not to dope module indirectly lends support for anti-doping legitimacy by reinforcing the claim that anti-doping rules are in place to protect athletes' health and ensure the opportunity to compete in a doping free environment.

The pre- and post-evaluation questionnaires built into ALPHA focus on 1) knowledge of the anti-doping rules and 2) social cognitive variables related to planned (doping) behaviour such as attitude, intention/willingness, perceived control, self-efficacy, norms and anticipated regret. Perceived legitimacy, or changes in perceptions about the legitimacy as a result of ALPHA, is currently not measured. Given the importance of legitimacy of anti-doping rules, and the fact that ALPHA already incorporates elements of this through the moral reasoning module and exercise, the measure which evaluates ALPHA's effectiveness should also include a measure of perceived legitimacy. In order to develop a psychometric tool to quantitatively measure perceived legitimacy specific to anti-doping, with good validity indicators and strong reliability, first it is critically important to understand the psychological constituents of legitimacy - and its relation to other constructs such as attitudes, social norms, morality and trust - and to operationalise legitimacy as a psychological construct. The perception of legitimacy cannot be empirically investigated unless it can be captured or measured in some ways. Thus the goal of this proposed phase of the study is to utilise available information in the relevant literature to inform scale development. Funding for the scale development (empirical/experimental phase) will be sought independently through applications to relevant research calls (e.g., the IOC Anti-Doping Research Fund 2015).

ALPHA's new approach may contribute to building legitimacy and helps to create acceptance among athletes, and their entourage, by "making the athletes partners rather than objects in the process" (Hardie, Henne & Mazanov, 2013), but the cognitive processes by which this may happen is unexplored. Doping literature is void of studies on how the perception of anti-doping legitimacy formulate, how it can be built or changed; and what influence it has on behavioural intentions regarding doping. However, literature suggests that legitimacy can be built strategically and used to have positive effect on outcomes such as compliance, cooperation, confidence and/or satisfaction. A recent systematic review on police-led legitimacy interventions legitimacy shows that all police-led legitimacy intervention had positive effect on the outcomes (Mazerolle, Bennett, Davis, Sargeant & Manning, 2013).

The last 15 years; and the last 5 years in particular, have witnessed a significant growth and diversification in social science doping research, yielding a considerable amount of information and data (Figure 1, showing the exponential increase in the number of peer reviewed empirical papers published between 1999 and 2014; 2015 being excluded as incomplete year). There is literature precedence for psychosocial and environmental factors that facilitate or protect against doping (e.g., Ntoumanis, Ng,

Barkoukis & Backhouse, 2014). Progressing doping research and anti-doping efforts, this accumulated intelligence should be synthesized in a systemic manner, revolving around the key factors of anti-doping. One of these, and on which this proposal is centred, is perceived legitimacy of anti-doping.

To guide research into the legitimacy of anti-doping approaches and their effect on compliance, the purpose of this review project is twofold. The proposed review aims to 1) identify social cognitive variables and map the relationship between perception of legitimacy and motivation to comply through available literature on the psychological aspect of legitimacy; and 2) synthesise and triangulate the available knowledge and evidence on perceived legitimacy of anti-doping and anti-doping organisations through a systematic review of quantitative and qualitative studies published to date on doping.

For the purpose of this proposed study, anti-doping legitimacy is defined as the subjectively perceived legitimacy of anti-doping rules and organisations. The research process of the proposed review is depicted in Figure 2. First, we will review the relevant literature to identify search terms and develop key themes for the systematic review, thematic analysis and meta-synthesis of doping literature. This literature will include 1) theoretical models of legitimacy in psychology (e.g., Jost, & Major, 2001; Plunkett Tost, 2011; Tyler, 2006) and 2) empirical research focusing on legitimacy and rule compliance and violation at the individual level. The latter encompasses a wide range of fields including but not limited to sport related literature. For example, perceived legitimacy has been researched at the individual level in relation to promotion (Feather, 2008), authority (Skitka, Bauman & Lytle, 2009; Van der Toorn, Tyler & Jost, 2011), discrimination (Rüsch, Todd, Bodenhausen, Olschewski & Corrigan, 2010; Morris, Sinclair & DePaulo, 2007), crime (Ford, 2011); road safety (McKenna, 2007), and counterterrorism (Tyler, Schulhofer & Huq, 2010). Interestingly, literature on perceived legitimacy in sport has been previously investigated in relation to justification of deviant behaviour such as rule violating (Silva, 1983), injurious act (Bredemeier, 1985; Duda, Olson & Templin, 1991; Miller, Roberts & Ommundsen, 2005) and aggressive behaviour (Tucker & Parks, 2001; Visek & Watson, 2005).

Using the search terms from the initial literature review, a systematic search of the doping literature will be conducted. We will follow the PRISMA guidelines for systematic searching and reporting (Moher, Liberati, Tetzlaff & Altman, 2009) and we will include both quantitative and qualitative literature. Synthesising qualitative research has been steadily gaining appreciation and popularity in evidence-based health care, in which thematic analysis is a "tried and tested method" that upholds the rigour of traditional systematic reviewing (Thomas & Harden, 2008), whilst allow synthesizing both quantitative and qualitative research outcomes. Similar approach has been used in relation to aetiology and trajectory (Sagoe, Schou Andreassen & Pallesen, 2014) and prevalence (Sagoe, Molde, Andreassen, Torsheim & Pallesen, 2014) of anabolic steroid use.

The identified body of literature will be subjected to quality assessment and thematic analysis using the themes developed through the initial phase of this review process. Quality assessment will be based on a pre-set criteria. For quantitative studies, the minimum requirements for inclusion will include details on sample characteristics (size, age, gender, country/location, level of sport involvement), details on perceived doping or anti-doping legitimacy measure(s) or measure(s) explicitly interpreted as perceived legitimacy (i.e., the survey question and rating scale) and reported means and standard deviations of

these measures. For qualitative studies, the minimum quality requirements will include details on sample characteristics (size, age, gender, country/location, level of sport involvement) and inclusion of direct quotations.

It is assumed that the quantitative data will be limited by the lack of uniform definition and standardised measure, which may render the data unsuitable for meta-analysis. In this case, descriptive analysis will be used. Survey data, including the survey instrument (e.g., question on perceived anti-doping legitimacy such as "Overall, how effective do you feel the Australian Sports Anti-Doping Authority is in preventing banned performance-enhancing substances in sport in Australia?", in Gucciardi et al, 2011) will also be regarded as qualitative text and included in the analysis (Guest, MacQueen & Namey, 2011).

Applied thematic analysis is an inductive procedure that supports theoretical model development and finding solutions to real life problems (Guest et al., 2011). It is a positivist/interpretative approach in a sense that assertions must be supported with evidence (data). Applied thematic analysis is particularly suited for the data at hand because it allows quantification and inclusion of text of any length (i.e., survey questions can be treated as text) and facilitates studying a particular topic (perceived legitimacy of anti-doping) rather than individual experiences; and fits well with evidence synthesis and metasynthesis (Dixon-Woods, Agarwal, Jones, Young & Sutton, 2005; Guest et al, 2011).

In our methodology, we will follow the guidelines set for thematic analysis in health care research (Fereday & Muir-Cochrane, 2006; Thomas & Harden, 2008) and in psychology (Braun & Clarke, 2006). Qualitative data will consist of published interview excerpts. Where deemed appropriate and informative, access to full transcription(s) of the interview(s) will be requested by contacting the authors of the published articles. In line with conducting meta-analysis, the source of the qualitative data will be fully acknowledged. Published excerpts and full interview text will be regarded as data and will be subjected to inductive thematic analysis. Contrary to the traditional thematic analysis where themes emerge from the data itself, we propose to develop themes from prior (non-doping related) literature on the social cognitive determinants of perceived legitimacy and apply these themes to doping-specific data. Themes will form a standardised data extraction template for data extraction. Using this standardised template, two researchers will extract the data independently. The quality of the data extraction will be assessed by calculating inter-reviewer reliability (kappa statistics) using IMB SPSS software. Bibliographic details will be summarised in table format with relevant themes linked to each study.

Results from the systematic reviews of quantitative and qualitative studies will be triangulated using data, methodological and theory triangulations (Denzin, 1989) in order to maximise knowledge on perceived anti-doping legitimacy. For final analysis (meta-synthesis), extracted data from quantitative and qualitative studies will be combined, hence the importance of the exact wording of the survey questions that are used or interpreted as perceived legitimacy. This approach will enable us to harvest information on aspects of perceived legitimacy of anti-doping in empirical work that does not explicitly identify perceived legitimacy but contains information on relevant aspects.