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The Subtle Colourings of (Informed) Consent in Performance Enhancement: Implications for Expertise

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The analytic method, part of the epistemonic method, provides us with a way to cope with perplexed cases, without even referring to the world out there. We are able to predict all possible variations of consent, and go on forming minimum *logical quadripoles*, 8-poles, 16-poles, etc., before even trying to make *any* connection to the world. This way, there are two major outcomes: All possible scenarios are *predicted*, and, because of that, our "logical generator" produces scenarios we couldn't even think of. Consent is, therefore, neither *binary* (existence or absence), nor just a *continuum* from existence to absence, but a *cladistic tree* stemming from the basic quadripole "existence of consent/not existence of consent/absence of consent/not absence of consent." The complexity increases rapidly when other terms are included; try: "existence of informed consent" or "existence of unintentional consent." More levels develop as we examine relevant terms, such as "exposure," "protection," or "consumption." In our case-study, we shall examine how different aspects of consent are expressed regarding the issue of *performance enhancement* and consider some implications for the notion of expertise within an SEA (Science of Exceptional Achievement) context. Many different terms may describe the most common situations, namely, "uniformed consent," "unintentional consent," "non-intentional consent," "not absence of consent," and also, "unintentional exposure," "intentional non-protection," and so on. In Greek language, the possible variations are even *more* (there are *two kinds* of negation in Greek). All the aforementioned terms have different ethical consequences. We shall also examine whether doping is an inherent part of expertise attainment.

Keywords: consent, performance enhancement, sports-doping, analytic method, logical quadripoles, episteme, expertise

1. Enhancing Performance

Becoming a successful athlete is identified with the long process of attaining expert skills—in essence to change one's own nature (Ericsson 2007). *Doping* refers to the efforts to bypass nature by enhancing performance—both physical and cognitive—artificially.

In some way, whether one is *a priori* "gifted" by nature or by some scientist, it is the same—at least as far as the result is concerned (Papageorgiou 2015). In some way, being "gifted," *a priori* is equivalent to being gifted *a posteriori* (i.e., after birth)—judging strictly from the perspective of the end product and not implicating moral issues—yet.

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Mind you, however, doping is not an exclusive peculiarity of athletes; as Haier notes, even though IQ pills are still a scenario of the future, a 20% of 1,427 scientists who were asked by Nature in 2008 responded that they "already use prescription drugs to enhance 'concentration' rather than for treating a medical condition" and that they were "willing to risk mild side effects to 'boost their brainpower' by taking cognition-enhancing drugs" (Haier 2009, 30). This is not particularly shocking, as it is already known that a growing body of healthy pupils, students, and researchers abuse ADHD drugs ("study drugs") to endure studying (*cf*. "Adderall days") both intellectually and emotionally (Vrecko 2013, 4; 10; 11). These drugs (D, L-amphetamine—Adderall, methylphenidate—Ritalin or… "Vitamin R," and many more known as "Smarties," "Kiddy Coke" etc.) are found to be addictive and full of complications, ranging from cardiovascular to mental symptoms (Sussman, Pentz, Spruijt-Metz & Miller 2006, 1; 4; 5). Another fierce debate regards the (positive) effects of psychedelic drugs (LSD etc.), or even more so, of traditional medicines, such as *ayahuasca* (Barbosa, Mizumoto, Bogenschutz & Strassman, 2012; Brierley & Davidson, 2012; Jauregui, Clavo, Jovel & Pardo-de-Santayana, 2011).

The current status of research on cognition-enhancing drugs in relation to disease is in its early stages. Researchers in the field of Alzheimer's disease, still try to define "Memory," "Enhancement," and discriminate the latter from "Therapy," that is, in the few instances *some* effectiveness is observed (Dekkers & Rikkert 2007, 141). Despite "the tremendous potential of this approach [alternative to targeted therapy strategies] for basic science and for clinical applications… we are only beginning this journey"—that is, to effectively treat the >5% of the population suffering from cognitive disorders (Lee & Silva 2009, 1; 15). Bibb et al., target specific effectors, such as the NMDA receptors, for the development of successful future strategies aiming at treating cognitive deficits (Bibb, Mayford, Tsien & Alberini 2010). In the same direction, Lynch et al., discuss the manipulation of mechanisms that are involved in the hippocampal Long Term Potentiation (such as NMDA receptors) through medication that was "highly encouraging" in animal models (mice/rats) affected by Huntington's disease and age-related cognitive decline, bringing us "closer to true cognitive enhancement" (Lynch, Rex, Chen & Gall 2008). Some years later, however, Lynch et al. acknowledge the difficulties in trying to substantially enhance cognitive abilities: "Perhaps there will be no new abilities and only a modest improvement in cognitive performance" (Lynch, Palmer & Gall 2011). Sosniak too, trying to identify the determinants of high performance summarizes, "in their most abbreviated form the findings:"

> Talent development takes a long time;
>
> The process is essentially one of qualitative change. It involved a continual and perhaps systematic reorientation and transformation—both of an individual and of activity of learning;
>
> Talent development involves many people working for the achievement of just one. (Sosniak 1987, 277)

It is therefore evident, that becoming an expert is a long and complicated process that *cannot* be decisively affected by various ergogenic means. However, the very opposite might apply: Logic necessitates the examination of anti-symmetric cases too, one should wonder, are there any instances where one is *unenhanced*, i.e., to either lose their skills, or just become worse?

Drug abuse, chronic poisoning, bad nutrition, emotional problems, toxic frame of mind etc., and above all, most current educational systems, may all act as restricting factors. The bottom-line is that high performance is a process both positive-constructive *and* negative: Before (or during) the creation of performers, one ought to have removed obstacles—something Rousseau had already described in *Emilio*. Such a process, especially

when limiting beliefs/attitudes exist, may require intense and prolonged effort. Training alone doesn't always guarantee the protection from negative influences.

2. The Problem of Consent

Are animals capable of consent? Whoever doesn't think so, they should try to pat a dog without its consent. But then again, what type of consent does a dog give? Does it have the mental capacities to intentionally give its consent, in the first place? More importantly, *does it matter*? I explain myself: There is a great philosophical tradition, both eastern (e.g., Buddhism) and western (e.g., Theosophy), conceiving intentionality to be directly proportional to consciousness (Uspenski 1954). Rossano views it as a "healthy development" to "look beyond strict scientific methods for a complete understanding of consciousness" (Personal correspondence, 18/3/2013). Rossano, in his work, identifies three cognitive processes that lie outside the capacity of unconscious processing (which animals are able to exhibit), namely, durable and explicit information processing, novel combinations of operations and intentional behaviors (Rossano 2003). Block, in a similar fashion, defines consciousness in a twofold way: There is *phenomenal consciousness*, i.e., the subjective "feeling" of a mental state, and *access consciousness*, i.e., the availability of mental representations for use in reasoning or actions *when focused attention is brought to bear on a stimulus or event* (Block 2001; Rossano 2003). Arguably then, animals do not have the capacity for intentional consent; only for unintentional, i.e., consent in the absence of consciousness and the presence of (i) instinct and (ii) learned behaviors. But do we need *intentional* consent to have the right to refer to *unintentional* consent in the first place?

It does not seem as one may fully benefit from the relevant literature when trying to define consent. "The idea of consent" is related to the psychological "state of mind of acquiescence" and some behavioral expressions of consent, such as *not* protesting (Eyal 2011). Otherwise, one may look up the lemma "consent" and find an equally vague definition, such as: "to agree to do or allow something: to give permission for something to happen or be done" (Merriam-Webster online). According to such definitions, an animal could indeed give its consent, if only unintentionally. Animal consent (which can only be unintentional) and human's unintentional consent seem very close to each other, both as much as concepts and as functions. Both are driven by instinct and learned responses and both have similar outcomes. The only difference in human's case is that consent *could have been intentional*. However, there are various degrees of intentionality (and consciousness) as well.

As far as the negative model is concerned, it does not matter that animals are only able to give their unintentional consent. Unintentional consent/consumption/participation are negative propositions; they may only be defined through their positive forms, i.e., *intentional consent/consumption/participation*. A great deal of our effort should be to explore these positive concepts. Here, let us begin with the definition of consent: a structural, mildly analytic concept involving consciousness and will, conceived as the qualitative existence of positive feelings towards an action of any situation involving the individual (necessary condition), combined with the dynamic expression of agreement (sufficient condition).

It is crucial to understand, according to this formulation of consent's definition, that in order for consent to be realized, both positive and negative prerequisites must be fulfilled: Lack of disagreement *alone* does not necessarily imply consent; it may just be *tolerance*. The resulting complexity raises the question of how many types of consent-like situations actually exist, and what might their significance be.

This problem may be reduced to a bookkeeping one. Is there a generator to produce *a priori* all the cases? Indeed, there is, it is called *the analytic method* which produces all logical multipoles.

3. Logical Multi-poles

The first, as well as the most basic pair to be examined, is that of *intentional* & *unintentional consent*. Our logical generator produces all possible combinations, enabling us to examine *afterwards* which situations from the world correspond to these sentences. Even more sentences may be produced if we were to include relevant or symmetric terms, such as participation, protection, exposure, etc.

(1) Intentional consent
(2) Non-intentional consent
(3) Intentional non-consent
(4) Non-intentional non-consent

(5) Unintentional consent
(6) Non-unintentional consent
(7) Unintentional non-consent
(8) Non-unintentional non-consent

(9) Refusal of intentional consent
(10) Refusal of non-intentional consent
(11) Refusal of intentional non-consent
(12) Refusal of non-intentional non-consent

(13) Intentional refusal of consent
(14) Non-intentional refusal of consent
(15) Intentional refusal of non-consent
(16) Non-intentional refusal of non-consent

(17) Refusal of unintentional consent
(18) Refusal of non-unintentional consent
(19) Refusal of unintentional non-consent
(20) Refusal of non-unintentional non-consent

(21) Unintentional refusal of consent
(22) Non-unintentional refusal of consent
(23) Unintentional refusal of non-consent
(24) Non-unintentional refusal of non-consent

The first objection might be this: Many of them seem to have the same meaning! However, that is irrelevant: These 24 sentences contain different signifiers. The proposed significance of the corresponding signifiers is irrelevant at this stage: It is up to us, and only afterwards, to examine the issue of meaning. Now, under a certain interpretation (especially in Greek), these 24 sentences do represent different cases. For example, one might argue that sentences (2) and (5) (and similar instances) represent the same case. In Latin-derived languages, that would pretty much be the case. In Greek however, where there are two different kinds of negation, introduced with *όχι* or *δεν* and *μη*, the meaning alters: the first type of negation denies the reality, whereas the second one prevents the realization of an imagined situation.

Opposite pairs, such as (1) and (4), (2) and (3), and all other similar instances, may be said to represent situations from the real world that are different, indeed opposite: (3) signifies the existence of intention, connoting all the implications of intentional actions, i.e., consciousness, responsibility etc. (2) signifies *absence of intention*. (1) is also a sentence signifying the existence of intention. (4) signifies an absence of both intention (such as 2) and consent.

Out of these 24 cases, one would be quite right to predict that cases (1) and (3), the ones that are perceived to be the most common ones, actually represent rather rare instances: under a *ceteris paribus* clause, each proposition should account for 1/24 cases.

These 24 cases represent the subtle colorings of consent. Could they be too subtle to really matter? Could they be too subtle for someone to be able to discriminate between them, to begin with? They might; however, our job as philosophers is to make their meaning and their implications explicit enough for other domains (e.g., law) to utilize in practice.

Before we set out to investigate any applications, let us reflect on some of these propositions. Remember that our logical generator provided us with all possible variations; however, our interpretation of these 24 propositions may very well vary. In this paper, the discussed interpretations are the ones the author gives; others may come with different interpretations—which is fine.

It is in order now to examine three examples.

- (7) would mean that someone has developed tacit mechanisms to avoid providing their consent.
- (9) signifies the determination to avoid giving our full consent.
- (12) signifies a refusal. Refusal of what? The refusal of non-consent, which means that I refuse to abstain from a consent-based procedure. Of course, this doesn't mean that I also take part in such a procedure. Avoiding abstaining from something and taking part in something are two different things. How do I abstain from a consent-based procedure? Non-intentionally, that is, I refuse to do such a thing (abstain…) non-intentionally, I express my denial to take part to such a process without being intentional. Cases where it is refused that the act be non-intentional actually represent a desire for our actions to meet maximin standards.

Maybe some examples would clarify things.

(7) Mom and dad make sure we don't hang out with "punks," "anarchists," "transsexuals" etc. If we tacitly internalize such a belief system, when we get older, much of our social interactions and choices would be led by our subconscious beliefs.

(9) It refers to cases when someone does something, which we do not accept, but don't deny it as well, by e.g., saying "Do it, but I don't want to know anything about it," we refuse to give our intentional consent.

(12) I want to not be able to refuse a medical treatment without being intentional; I accept the lack of non-intentionalityas the minimum standard to consider my negative decision valid; the treatment might save my life, so I can't miss it just because I refused it unintentionally.

Now, if I attach value judgments to the aforementioned explanations, that alone would carry me to the domain of ethics. Let's do that by selecting various ethical systems to derive our standards from!

- (7) is, plainly put, bad, evil, and in theosophical terms, it is identified with unconscious acts, something that is in platonic philosophy is expressed with the infamous motto "nobody is consciously evil."
- (9) denotes a classic case when someone tries to abolish responsibility by willingly not-knowing. I would suggest that this chosen ignorance is even worse than participation: it poses no limits to what others might commit.
- (12) is a legitimate request my actions to meet at least the maximum minimum standards. It shows responsibility and high ethical values.

What if I choose to examine, in terms of ethics, applications from the real world, and not just the "meaningless" sentences 1-24? Then I would be doing *applied* ethics! Moreover, if I chose examples related to e.g., medicine, I would have switched to bioethics! Examining consent in human performance enhancement, therefore, rightfully belongs to the domain of bioethics.

4. Enhancing Experts

The process of expertise attainment presented in section 1 shows that enhancement is, by itself, not sufficient for a "just plain folk" to become an expert. Enhancements provide the means, however restricted, to navigate within the continuum of expert performance. Being already an expert means that one is at least partly knowledgeable and hence partly responsible for the decisions they make in relation to their development. What influences an expert's decision to artificially enhance their performance, may be:

- Peer pressure, or career pressure (*cf*. publish or perish);
- Social expectations;
- Work-addiction ("workaholic"), Obsessive-Compulsive Disorder (aka the "bad" kind of perfectionism).

On the other hand, there is the *myth of enhancement*. Enhancement is not an "on-off" modality. Depending on the method used, there is a continuum from ergolytic to ergogenic effects, and, moreover, usually there are side-effects, which at times could be so severe that counter the benefits.

Consent itself is not even a continuum. It doesn't start with dissent to gradually become consent as one more and more wilfully accepts a situation. It is a cladistic tree with many incompatible variations representing different branches of the "cladogram of consent." Attempting to reduce the (minimum of) 24 cases presented here to some two, three or four, may cause more damage than good.

For instance, to return to enhancing experts, one would expect them to make choices based on full intentional consent. Unintentional consent is, indeed, out of the question. A teenager could unintentionally consent to child-labour when picking a pair of shoes that, unbeknownst to her, are made in a factory in a third-world country using child-workers. Garlic is good for memory—so they say—but consuming garlic on behalf of any expert cannot qualify as unintentionally consenting to performance enhancement. The statistical difference is just too small—if any—for the given amount of garlic one would consume.

However, there are cases where experts, both in sciences and in sports, trust their colleagues, coaches, or even friends, to use a product having some desired properties, such as healing, anti-oxidant, food-replacing etc. Such cases would qualify to fit (6): non-unintentional consent. Since non-unintentional consent is not refused (18), such a behaviour should have at least some ethical consequences: persons may be partly responsible for their actions. (9) is a much worse case, where the responsibility is full: by denying giving consent intentionally the most horrific crimes against humanity were made. It is not that I just let myself believe a false story; I actively sign a blank cheque giving the other person the justification to commit any act deemed necessary. This is the way doping took place in East Germany. Socio-economic pressures were indeed unbearable for the athletes: be a successful athlete, tour the world, gain fame and a high living standard or perish—literary *perish*. For us, such expert athletes demonstrated (9): *refusal of intentional consent*. For them, it was so important to behave this way, that they may have demonstrated—as far as they are concerned—a type of consent outside the basic 24-pole presented here: *protection of non-intentional consent*.

5. Conclusion

The last case shows how much one may open the discussion on consent by taking into consideration not only its subtle colorings, but perspectives as well. In this brief paper, a first attempt was made to present consent through the looking glass of the analytic method, applied on doped experts. While doping is not crucial for expertise attainment, and regardless of its ultimate necessity, the moral responsibility for its endorsement

still burdens experts of any kind—but not just in *one* way. Finally, if such a method of survey is broadly accepted, a new tool will be added to the toolkit of the western philosopher in order to deal not only with consent-related issues, but with every concept as well.

Works Cited

Barbosa, P. C. R., Mizumoto, S., Bogenschutz, M. P., and Strassman, R. J. "Health Status of Ayahuasca Users." *Drug Testing and Analysis* 4.7-4.8 (2012): 601-9.

Bibb, J. A., Mayford, M. R., Tsien, J. Z., and Alberini, C. M. "Cognition Enhancement Strategies." *The Journal of Neuroscience: The Official Journal of the Society for Neuroscience* 30.45 (2010): 14987-92.

Brierley, D. I. and Davidson, C. "Developments in Harmine Pharmacology—Implications for Ayahuasca Use and Drug-Dependence Treatment." *Progress in Neuro-Psychopharmacology & Biological Psychiatry* 39.2 (2012): 263-72.

Dekkers, W. and Rikkert, M. O. "Memory Enhancing Drugs and Alzheimer's Disease: Enhancing the Self or Preventing the Loss of It?" *Medicine, Health Care, and Philosophy* 10.2 (2007): 141-51.

Ericsson, K. A. "Deliberate Practice and the Modifiability of Body and Mind: Toward a Science of the Structure and Acquisition of Expert and Elite Performance." *International Journal of Sport Psychology* 38 (2007): 4-34.

Eyal, N. "Informed Consent." 2011. <http://plato.stanford.edu/entries/informed-consent/#IdeCon>.

Haier, R. "What Does a Smart Brain Look Like?" *Scientific American Mind* 2009: 26-33.

Jauregui, X., Clavo, Z. M., Jovel, E. M., and Pardo-de-Santayana, M. "'Plantas con Madre': Plants That Teach and Guide in the Shamanic Initiation Process in the East-Central Peruvian Amazon." *Journal of Ethnopharmacology* 134.3 (2011): 739-52.

Lee, Y.-S. and Silva, A. J. "The Molecular and Cellular Biology of Enhanced Cognition." *Nature Reviews. Neuroscience* 10.2 (2009): 126-40.

Lynch, G., Palmer, L. C., and Gall, C. M. "The Likelihood of Cognitive Enhancement." *Pharmacology, Biochemistry, and Behavior* 99.2 (2011): 116-29.

Lynch, G., Rex, C. S., Chen, L. Y., and Gall, C. M. "The Substrates of Memory: Defects, Treatments, and Enhancement." *European Journal of Pharmacology* 585.1 (2008): 2-13. <http://doi.org/10.1016/j.ejphar.2007.11.082>.

Papageorgiou, K. G. "Talent as an Unintentional Agent." *BIO-HΘIKA* 1.2 (2015): 38-54.

Rossano, M. J. "Expertise and the Evolution of Consciousness." *Cognition* 89.3 (2003): 207-36.

Sosniak, L. A. "From Tyro to Virtuoso: A Long-Term Commitment to Learning." Eds. F. R. Wilson and F. L. Roehmann. *The Biology of Music Making: Music and Child Development.* Denver, 1987. 274-89.

Sussman, S., Pentz, M. A., Spruijt-Metz, D., and Miller, T. "Misuse of 'Study Drugs:' Prevalence, Consequences, and Implications for Policy." *Substance Abuse Treatment, Prevention, and Policy* 1.15 (2006): 1-15.

Uspenski, P. *The Psychology of Man's Possible Evolution*. New York: Random House, Inc., 1954.

Vrecko, S. "Just How Cognitive Is 'Cognitive Enhancement'? On the Significance of Emotions in University Students' Experiences with Study Drugs." *AJOB Neuroscience* 4.1 (2013): 4-12.