ABSTRACT
There are many reasons why collaboration between academic institutions and private industry should be encouraged. At the same time, such collaborations raise the potential for profound conflicts of interest. Furthermore, there may be different kinds of issues in different kinds of industry, as is reflected in the metaphors we employ to think about them. The pharmaceutical industry is at times viewed as a “good” industry that can go wrong, while the tobacco industry is analogously viewed as a “bad” industry that can do little right. The alcohol and gambling industries may be particularly useful to think through insofar as they arguably require a continuum of benefits and harms to be acknowledged. I consider a number of initiatives by the alcohol and gambling industry in South Africa, and argue that there are real opportunities for delineating and developing more robust models of academic-industry collaboration, which ensure that public health is maximized in that country and elsewhere.

At the same time, academic-industry collaborations raise the potential for conflicts of interest. Certainly, in the case of psychiatry, conflicts of interest have received increasingly critical attention (2, 3). There may be strong incentives for academic clinicians to accept funding for research from particular companies, for example, in exchange for presenting biased views of a particular pharmaceutical product. Examination of particular cases of collaboration of academic psychiatrists with industry indicates that increasing public health and private profit can at times be mutually exclusive (4).

In this paper we focus on academic relationships with the alcohol and gambling industries specifically. We argue that these are particularly useful industries “with which to think” (5), insofar as they do not fit easily into the typical categories of “good” and “bad” industries, but rather fall on a continuum of benefits and harms. Work with these industries therefore relies on, and calls for, the delineation and development of more robust models of academic-industry collaboration to ensure that public health is maximized. We compare two exemplars of academic-industry collaborations in South Africa in order to help consider optimal ways forwards in this contentious area.

IDEALIZATIONS OF INDUSTRY
Human categories often involve typical and atypical exemplars (6). For example, robins and sparrows are typical birds, while ostriches and owls are atypical ones. Where exemplars are atypical, humans may experience more difficulties in thinking efficiently and clearly; we are slower, for example, to classify owls and ostriches than we are to classify robins and sparrows (7). Here I want to put forwards an idealization of a typically “good” industry, and of a typically “bad” industry. I will argue that the alcohol and gambling industries are atypical, insofar as they have elements of both “good” and bad.” While it is perhaps
therefore harder to think clearly about these industries, it is important to do so.

The typically “good” industry is one which works hard for the benefit of mankind. The better the products of such an industry for health, the more profitable are the component businesses. The role of the academic clinician is to share his or her knowledge and expertise, so that the industry moves quickly to make more profits. There is therefore a strong case for collaboration between academia and industry, and indeed such collaboration is prized. The pharmaceutical industry is seen by many as just that kind of industry, with academic clinicians valuing collaborative opportunities. However, there are times that industry acts in a way that is contrary to patient interests (e.g., ignoring negative trials or important adverse effects). Academics then attempt to impose additional regulatory measures, e.g., transparent reporting of conflicts of interest, public availability of trial databases. Kopelman et al (8) identified 285 reviews from 10 high-impact journals in psychiatry and 2 in general medicine. Disclosures were reliably coded as biotechnology/pharmaceutical/other material interests, nonprofit/government, communication companies, or other. The authors in both types of journals frequently reported industry ties. However, the reviews in the psychiatric journals were significantly less likely to include industry-related disclosures (32% of the reviews; 18% of the authors).

Some industries are viewed as essentially “bad” or “evil.” Thus the industry works only for profits at the expense of mankind. The worse the products of such an industry for health, the more profitable are the component businesses. The academic clinician can have no collaborative role here, he or she must insist that the industry limit production. The tobacco industry is viewed in this light, with academic clinicians viewing tobacco sponsorships of any kind (e.g., at sports events) as “dirty money,” and insisting that any scientific work is mediated by government in order to ensure that there is no direct collaboration. This “non-association model” (9) holds that while government may need to maintain some relationships with industry (e.g., to monitor standards and comply with regulations), engagement of health academics with the industry must be indirect.

The alcohol and the gambling industry are arguably “atypical,” in that there are seemingly both “good” and “bad” components. On the one hand, these industries are associated with many benefits, including employment, leisure, tax revenues, etc. On the other hand, alcohol and gambling are both associated with significant problems for certain individuals, and indeed for society as a whole. Partnerships with these industries therefore run several kinds of risks, including unacceptable kinds of conflict, failure to recognize differences in power, inappropriate government-industry alliances, fragmentation of the health sector, and silencing of dissent (9). The precise health outcomes of industry products may depend on the nature of the models that government and academia develop for working with the industry, and the extent of harm reduction which results.

**TWO INDUSTRIES IN SOUTH AFRICA**

The alcohol industry in South Africa is enormously successful from the perspective of its shareholders. South African Breweries is one of the biggest breweries in the world. Wine farms in the Western Cape are an important part of the national economy, contributing to local employment and to foreign tourism. At the same time, alcohol-related problems are immensely costly to individuals and to the country as a whole, resulting as they do in a broad range of problems, including the world’s highest rates of fetal alcohol syndrome, as well as very high rates of alcohol-associated interpersonal violence and motor vehicle collisions. Current calculations indicate that the alcohol industry is very costly for the country’s economy.

To date, the extent of interaction between academic clinicians and the alcohol industry is not particularly well documented. One exception is industry funding of the Foundation for Alcohol Related Research (FARR), which has focused on research on fetal alcohol syndrome. For those who value alcohol-academia collaboration, this would be an exemplar of how industry funds can be used to highlight an alcohol-related problem, and to help to think through the most appropriate interventions. For those who are more sceptical, this exemplar instantiates the view that industry only provides funding for certain kinds of issue, and fails to address many key research and policy questions (10-15).

The gambling industry in South Africa has only been legalized in recent years. During apartheid, gambling was permitted in some of the so-called “homelands.” However, with the advent of democracy, gambling was allowed throughout the country. Once again, this is associated with a range of positive effects, including local employment, as well as negative outcomes, including pathological gambling. With this in mind, industry funds were used to establish a National Responsible Gambling Foundation, which provided education on gambling, did research on the scope
of gambling in the country, and offered free treatment to those suffering from pathological gambling (16).

A good deal of the NRGF work has been undertaken in collaboration with academia. For example, research on prevalence of pathological gambling was done by researchers based at the University of Cape Town. More recently the NRGF funded a Fellowship in Addiction Psychiatry at the University (in the interests of rigorous disclosure, it is important to emphasize that I helped negotiate this post, and have helped mentor the research on gambling done by this Fellow). While industry is arguably more interested in profit maximization than harm reduction, the model instantiated by the NRGF allows for at least some harm reduction, and academic clinicians have contributed to this effort (17).

A WAY FORWARD

Academic clinicians, including those working in psychiatry, find themselves facing a broad range of potential conflicts of interest, both financial and non-financial (2). In the case of the pharmaceutical industry such conflicts of interest have been well documented, and a range of standard practices have emerged in order to help ensure optimal outcomes (e.g., disclosure by clinicians of their interests, disclosure by industry of negative trials) (18). Similarly, in the case of the tobacco industry, stringent rules have emerged to help ensure that academics do not help contribute to smoking-related harms (15).

In the case of the alcohol industry, there is a growing sense that this industry has unfairly dictated the rules of academia-industry relationships, so that the potential benefits of such collaboration are far from realized (19). Thus, for example, the industry has focused its attention on particular kinds of research and policy, at the expense of addressing more effective ways of reducing harm (20). There is a real opportunity for industry to make larger and more robust contributions to improving the health of those who suffer from alcohol dependence, and so to help mitigate the enormous harm associated with alcohol.

The South African experience confirms this view of the alcohol industry, and also offers an alternative exemplar of academic collaboration with the gambling industry. The NRGF, despite being funded by industry, has been able to provide some useful services, and to undertake some useful research (16). While the gambling industry is clearly committed to greater sales of its product (and so to more gamblers), corporate social responsibility also demands attention to harm reduction (21). It is important to note, however, that such collaborations are dynamic; they entail a continuum of moral jeopardy (22), and at particular time points unmanageable conflicts of interest may emerge (23).

Much further work is needed to determine how best to facilitate academic-industry collaborations in the areas of alcohol and gambling so that public health is maximized. Good models of such collaboration remain to be fully delineated and developed; these might arguably provide space for these industries to remain profitable, but also make a real and substantive contribution to mitigating addiction-related harms. Given the negative impacts of alcohol and gambling on individuals and on societies, it is incumbent on both industry and academia to produce and implement such models and to optimize public health (24-26). Such models need to spell out appropriate governance mechanisms, including establishing clear walls between marketing interests and research prioritization, and oversight of financial transactions, in order to avoid conflict of interests.

CONCLUSION

There are a range of opinions about the nature of philosophy, including bioethics (27). The approach taken here is unlikely to be one that will appeal to all. Nevertheless, the argument that philosophy in general, and ethics in particular, proceeds by delineating and adjudicating different metaphors is arguably consistent with data from the cognitive-affective neurosciences that emphasize the importance of metaphoric processes to thinking about categories, and our moral decision-making in relation such categories (28-30). While the specific exemplars of relationships between the alcohol and gambling industry noted here are drawn from the South African context, the argument is one which is intended to apply more broadly.

When discussing relationships between academics clinicians and industry, it may be instructive to consider typical examples of “good” and “bad” industries. In the former case, the industry is generally thought to be focused on products that improve patient outcomes, and provided that certain measures are in place (e.g., transparency about relationships, availability of all data), collaborative models are supported. In the latter case the industry is generally thought to be focused on products that are harmful to individual and public health, and therefore a non-association model is needed (with no direct contact, and any association only occurring via a government agency).

In practice, however, it would seem that many industries
have aspects of both “good” and “bad,” as exemplified by the alcohol and gambling industries. Instead of conceptualizing funding as simply “clean” or “dirty,” we need a more complex model which emphasizes a continuum of jeopardy (22). It would seem useful to try to optimize ways of relating to industry that maximize patient and societal outcomes; while partnership models run important risks, given the potential conflicts of interest that arise, the non-association models that have been developed for “bad” industries are unlikely to encourage efficient collaboration. Thus there is a need for models which allow a sustainable and effective “third way,” acknowledging that many industries entail a continuum of benefits and harms, where all parties agree on the goal of maximizing health outcomes and/or reducing harms, and where there are structures and processes which monitor this goal and ensure that it is reached.

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