

The allure of prizes: How contests trap us in competitive relationships

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It is a truth universally acknowledged, if not a quantified fact, that an organization with capital to spare must be in need of a prize to offer.¹

Implicit in our reworking Jane Austen's line is the dimmer, yet still universal truth that individuals and organizations whose capital and media profile are lacking must be in need of a contest to win. For Austen, the allure of fortune, and its unspoken but significant charms, sets a contest of the heart in motion, drawing the participants deeper into a relationship whose boundaries and possibilities draw tighter as a potential fortune draws near. Like all human activities, contests of the heart are both naturally occurring and highly cultured. Everywhere humans seek mates, but not necessarily with the stakes, or in the style, of early 19th century England. In theorizing contests of the heart as a social dramas and, less famously, as "a manoeuvring business," Austen captured the flirting, flattering, and luring inherent in contests that was lost as analysts like Simmel and Marx took up competition and contests and gave them a scientific sheen.

¹ We have taken liberty with the opening line of Jane Austen's *Pride and Prejudice* in which she suggests that assumed truths contain hidden complexities. Following Austen, we argue that prize giving and seeking is more complex than commonly assumed.

Our starting point for recapturing the luring and manoeuvring inherent in contests, whether they are motivated by the heart, the head, or monetary gain, is Simmel's pioneering work on competition and (TK's this volume) recent elaboration of Simmel's work. In Simmel's formulation (Simmel 1950, p. 135–37), competitions are naturally occurring phenomena, the result of two, or presumably more, parties competing for material or symbolic gain. Simmel's contribution lies in theorizing these naturally occurring competitions as benefitting a third party. As Simmel notes, "[the *Tertius Gaudens*] has an equal, and equally independent, and for this very reason, decisive, relation to the two others. (Simmel 1950, p. 159)." While Simmel conceptualizes competition in the abstract, our concern is with a concrete form of competition, the contest. We join (TK this volume) who elaborate on Simmel's triad by conceptualizing contests as the result of a 4th party who, rather than extracting value from naturally occurring contests, intentionally creates the form and sets the stakes of contests through clever design. In this conceptualization, competition is not a necessary feature of human life, but rather is brought into being, and is mediated through, the contours of human relationships.

In what follows we join Austen's observations and Simmel's theorizing to the anthropological literature on traps and trapping with the aim of recapturing the social drama inherent in contests and understanding how contests organize competitive relationships in late capitalism. Our argument is simple: contests are traps, funnelling both the wary and unsuspecting into competitive relationships through the lure of material and symbolic rewards. Anthropologists have conceptualized traps as sites of unfolding social dramas (Gell 1996); social dramas initiated by a lure, designed to imitate a naturally occurring object or process, and

brought to fruition, or thwarted, by the designs of the trapper or trapped respectively. We join it to our earlier work (Souleles & Scroggins 2017) on the stakes of games that disruptive innovators can compel others to play and the theory developed in this volume towards a straightforward goal: examining how contests create, mediate, and enforce the contours of competitive relationships.

Traps and trapping have been part of anthropological discourse since Otis Mason, a contemporary of Simmel, wrote of their design and implementation: “a trap is an invention for inducing animals to commit incarceration, self-arrest, or suicide (Mason 1900, p. 657).” Mason went on to form a typology of traps, considering them of prime importance to ongoing debates over the culture concept. But it was Gell (1996), in forming an anthropological theory of artwork, who first compared the pull of cultural productions to traps by analogizing an animal encountering a trap with a visit to an art gallery; each becomes captivated by the trap and artwork respectively, pulled in by the promise of an alluring experience.

From the form of the trap, the dispositions of the intended victim could be deduced. In this sense, traps can be regarded as texts on animal behaviour. The trap is therefore both a model of its creator, the hunter, and a model of its victim, the prey animal. But more than this, the trap embodies a scenario, which is the dramatic nexus that binds these two protagonists together, and which aligns them in time and space. (1996, p. 27)

In a context closer to our own, Seaver (2018) argues that the drama of trapping plays out in the digital landscapes through engagement with algorithms that recommend and serve content across the internet. Seaver notes that recommender systems work by promising potential

consumers alluring and personalized experiences as they travel down a “product funnel” where they are trapped, sorted, and served up matching product recommendations.

Like the lures used to attract and trap animals, prizes come in a dizzying variety of styles and employ a dizzying number of techniques in use, each tailored to specific social situations, made attractive to specific individuals, and intended to create specific outcomes. As we argue further on, prizes are such powerful lures and attractants, at times luring us into social action and at times simply holding our attention, that they need not be explicitly offered to be effective. Like a trap, a contest embodies a scenario that binds the prize creator and prize seeker together and aligns them in time and space. We might notice one additional and telling feature of traps. Traps crisscross the boundary between the natural and the cultured in complex ways, intertwining, intercutting, and interweaving, rather than separating the two.

The consulting firm McKinsey (see Figure 1 below) has categorized prizes (which they assume are natural features of their own material epoch, what we’re calling late capitalism, though they don’t call it that) by the kind of change they intend to bring and how that change is to be achieved, providing a good enough start:







| Exhibit 12: Six prize archetypes | | | |
|---|--|--|--|
| Archetype | Goal of prize | Primary change levers | Some Examples |
|  Exemplar | • Focus attention on, set standards in, and/or influence perception of a particular field or issue | • Identifying excellence • Influencing perception | Man Booker Prize (Literature), World Food Prize (environment) |
|  Exposition | • Highlight a range of best practices, ideas, or opportunities within a field | • Identifying excellence • Mobilizing capital | PICNIC Green Challenge (environmental) |
|  Network | • Celebrate and strengthen a particular community | • Identifying excellence • Strengthening community • Mobilizing capital | El Pomar, X PRIZES |
|  Participation | • Educate and change behavior of participants through the prize process | • Strengthening community • Educating/improving skills | FIRST Robotics Competition |
|  Market stimulation | • Emulate market incentives, driving costs down through competition and exposing latent demand | • Identifying excellence • Mobilizing talent, capital • Focusing a community • Influencing perception | X PRIZES |
|  Point solution | • Solve a challenging, well-defined problem requiring innovation | • Focusing a community • Mobilizing talent | Netflix Prize, X PRIZES |

Figure 1: McKinsey's Six Prize Archetypes

Beyond butterfly collecting, McKinsey's chart is useful in its explicit reference to social manipulation. Prize by prize, they explain how specific kinds of contests call for specific kinds of competitors and manipulate the competitor's social world in specific ways, all to advantage the contest creator. Take one example, "The Exemplar." The Exemplar is designed to set standards and personify excellence, shaping the commonly held perception of a field. If we take any of the various Nobel prizes, we can see the way they valorize a particular approach to a discipline or endeavour and grant worldwide fame and no small amount of money to those who win.

It is worth noting, too, that all this is achieved by a small group of Swedes and Norwegians acting at the behest of a long-dead dynamite tycoon, and the whole world pays

attention. Dead or alive, corporate or individual, in the continuation of the Nobel prize, the power of the contest creator in the 4th position is made visible. The persistence of the Nobel prize beyond the temporal bounds of Alfred Nobel's life illustrates a point of confluence between prizes, traps, and (TK's this volume) formulation of the 4th position: the power of the 4th position to design the terms of social action that persists through the interaction of the design, in this case a prize, and those caught in the design's allure.

A funnel trap works by degree; as an animal progresses deeper into the trap, the animal's ability to manoeuvre, and therefore leave the trap, is slowly taken away. Animals are left alive but their ability for independent action are slowly curtailed. From the trapper's point of view, the advantage of a funnel trap is its ability to discriminate between animals worth keeping and animals to be discarded. It allows the trap maker to decide, at the trapper's leisure, the value of the animals in the trap. This design feature in itself is a decision ladder. Built into the trap is a type of logic that denies entrance to undesirable and oversized animals.

Below is a simple diagram of a lobster cage, a simple type of funnel trap designed to trap only lobsters of a certain size. A lure is placed in the more open area beyond the narrow end of the funnel, drawing the lobster into the funnel. Note that the size of the chambers slowly decrease as the animal reaches the end of the funnel. Once entered into the funnel, the lobster cannot decide to leave. The funnel trap is a one-way valve. When the trap is pulled off the sea floor, the trapper judges the lobsters in the trap, keeping those deemed legal catch and letting the rest return to the sea floor, their brief trip over.

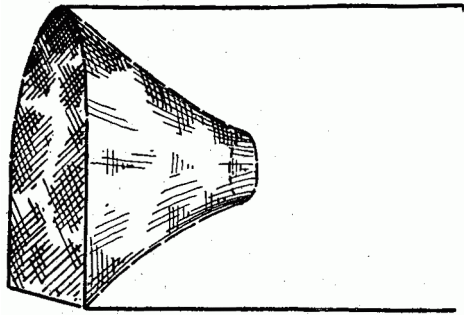


FIGURE 2: A FUNNEL TRAP

As Gell (1996) and Seaver (2018) have argued, traps intended to lure and capture the humans of late capitalism work through a similar process, if through differing forms. Like Mason’s typology of traps, McKinsey’s typology of prizes exemplifies the varieties and valences of the forms, lures, and social dramas envisioned by the designers of both traps and contests. In the next section, we examine the metaphoric netting and lures used by contest designers to create competitive relationships. Our twinned cases demonstrate how prizes work to lure both the wary and the unsuspecting into a particular kind of social drama – the contest. Borrowing a term from film criticism, we conceptualize the prize as a MacGuffin, a device commonly used in theatre and film to lure an audience into the drama of plot and character, but otherwise immaterial and unimportant to the larger exercise of power prize-setting and the “fourth position” entail. A MacGuffin, in other words, is an excuse or conceit for luring an audience in the unfolding of a social drama, they work in the same manner as a lure in a trap or a prize at the end of a contest. Put in more academically familiar language—one could think of it as a fetish that hides agency and a larger structure.

We will illustrate this definition of contests in a pair of case studies. Like our opening vignette, each case study addresses the interaction between those who create prizes and those who seek to win prizes, focusing on how those who create prizes manipulate reality for all of us, demonstrating how little is necessary to create the manipulation and how willing all of us, as good citizens of this late capitalist moment, are to step into contests as if competing for a prize, be it implied or explicit, is a naturally occurring choice. Further, we argue that this is the case even when the prize on offer is little more than a MacGuffin. Like the MacGuffins familiar from Alfred Hitchcock's work, a spare key in *Dial M for Murder* or a piece of microfilm in *North by Northwest*, the imagined reward from winning a prize heightens the social drama of competition, raising the stakes of competition and resolving ambiguous relationships into competitive relationships.

Scroggins' case study examines his participation in the bioluminescent community project at the Silicon Valley Do-it-Yourself Biology laboratory BioCurious. What started out as a straightforward (if technically daunting) educational project designed to teach newcomers the basics of wet lab techniques by creating a bioluminescent sign to hang in BioCurious' front window quickly transformed into a potential commercial enterprise dominated by Silicon Valley entrepreneurs, as the lure of an international competition, a Participation Prize in the McKinsey parlance, was dangled in front of us. In short order, the local ends of our small-scale project were bent to the large-scale and global ends of International Genetic Engineering Machine (iGEM) competition – “tackling everyday issues facing the world.”

Souleles' case study examines how people spontaneously organize and compete with each other around the promise of an amorphous and fictitious prize. For the last three years, he has been working on a large project studying changes in financial markets due to the rise of algorithmic, automated, and high-frequency trading. Most scholarly and journalistic accounts have framed the development of this new market as a “high-frequency arms race” in which competitors vie for the fastest data feeds and exchange connections. This assumed prize, in turn, hides other market activities within financial markets that are equally as consequential as the rise of high-frequency algorithmic trading.

Lured into a Contest

The lure of the iGEM competition

Almost a decade ago, a new type of science and a new type of scientist emerged from the private spaces of garages and kitchens into public view as the first Do-it-Yourself Biology (henceforth DIYbio) laboratories opened. At the DIYbio laboratory BioCurious where Scroggins conducted two years of fieldwork, several months after opening to fanfare and media coverage, only a handful of people were using the wet lab to do biological experiments (Scroggins 2017; 2019). While the space quickly became a mecca for Silicon Valley tourists, laboratory work remained the province of a handful of professional scientists who worked at BioCurious due to lack of university affiliation or funding. To rectify this problem, the BioCurious board of directors decided to host a competition to develop “community projects” that would create a

structured apprenticeship program, turning members from biological novices to skilled experimenters.

To select the “community projects,” a contest was held at BioCurious. Entries would be submitted to a panel of Biocurious board members, who would then select the most suitable projects. Per the contest announcement, the prize for winning entries was support from BioCurious in the form of free publicity and laboratory space. Potential projects were to engage the public, offer an easy path into laboratory work for new members, and offer media audiences a compelling example of DIYbio’s potential. Out of nearly a dozen entrants, two projects were selected. One of the two winning projects was the Bioluminescent community project, aimed at creating a household lamp that would operate via the metabolism of bioluminescent bacteria rather than electricity. The Bioluminescent community project was led by a local artist illegally living in an attic space above his studio, without electricity. As he informed us at the inaugural project meeting, he was inspired by the Philips Microbial House design probe, which had recently won an award at a design competition in the Netherlands, to create an electricity free from of lighting so he could read in bed without attracting the kind of attention that might see him evicted from his living space. The initial meetings were attended by several local graduate students, one professional scientist, a couple of software engineers, and several serial entrepreneurs who were attracted to DIYbio for the technical challenges and the possibility of working on, as one entrepreneur opined, “the next big thing.”

In the course of our amateur research into bacterial plasmids, several members of the project discovered the iGEM competition. The International Genetically Engineered Machines (iGEM) competition was founded by the synthetic biologist Drew Endy to spur innovation and interest in the field of synthetic biology. For the last fifteen years, teams of collegiate synthetic biologists from around the world have converged in Boston for the annual iGEM competition, or, as it is colloquially referred to among those who judge and compete, the Giant Jamboree. Entering the iGEM competition requires a yearlong commitment. Teams must be organized a year in advance, faculty advisors must be secured, registration of intent on the iGEM website is required, and once these preliminaries are satisfied, a longer list of requirements must be satisfied. In exchange for registering and formally entering the competition, teams receive a distribution of standardized biological parts that can be used in the construction of their entries. The rub that lends iGEM the air of a MacGuffin is that there was no mechanism for a “community laboratory” like BioCurious to enter the iGEM competition. At the start of our project, our initial steps down the funnel, we did not consider our unsuitability a problem but, as another serial entrepreneur put it, “a minor hurdle” to be negotiated with the iGEM organizers. As will be made clear later, this minor hurdle would grow into an impasse.

The goal of the iGEM competition was the creation of a library of interchangeable biological parts, cleverly named BioBricks, to be used in the construction of novel biological organisms. In exchange for sharing engineering diagrams and schematics describing their entry in the iGEM competition, participants would receive access to all previous applicant’s schematics, engineering diagrams, and most importantly, the full library of synthesized

biological parts ready to be used in the construction of novel bacterial plasmids. Fuelled by the unwarranted assumption that a library of synthesized biological parts is equivalent to a library of software modules, access to this library, we decided at an early meeting, was the real prize for entering the iGEM competition. As the iGEM website explains:

iGEM's main program is the iGEM Competition. The iGEM competition gives students the opportunity to push the boundaries of synthetic biology by tackling everyday issues facing the world. Made up of primarily university students, multidisciplinary teams work together to design, build, test, and measure a system of their own design using interchangeable biological parts and standard molecular biology techniques. Every year nearly 6,000 people dedicate their summer to iGEM and then come together in the fall to present their work and compete at the annual Jamboree (iGEM.Org" n.d.).

What our enthusiasm elided was that in entering the iGEM competition (with the promise of attending the jamboree, a literal party), a team must slowly, over a period of time, bend its purpose and attention to match those of the competition organizers. Rather than a project designed to further the laboratory skills BioCurious members, ostensibly what the winner of the community project competition was supposed to pursue, every step down the funnel drew us closer to the iGEM's preferred ends and preferred social drama of finding a solution to "everyday problems" using synthetic biology. Though, as we were soon made to realize, illicitly reading in bed was not the kind of "everyday problem" the iGEM organizers wanted to see solved through synthetic biology. We might put the point spatially and temporally: the closer the jamboree comes, the more intense is the pull of the competition on the participants.

This was the case for the “community laboratory” team Scroggins participated in during spring and summer of 2012 at BioCurious. First, the artist’s idea to create a lamp that did not need electricity morphed into creating a BioCurious sign to be hung in the office window, powered by bioluminescent action. In time, the project would morph yet again into creating a generalized platform for plasmid engineering. With the iGEM fame and possible fortune in the form of a new market for direct-to-consumer bioengineered products, the original plans and the preparatory technical work that had been done were discarded in favour of using iGEM’s library of BioBricks. Each iteration pulled the team further from the vision of using the “community project” to create new DIYbiologists motivated by artistic or critical concerns and pushed towards the iGEM vision of engineered solutions for “everyday problems.”

The lure of high-speed trading

Prizes and games are transparent in a way because they are explicitly tagged as competitions and we can respond accordingly. In the wider world, however, what may not be explicitly defined and governed as competitions for prizes are often treated as such, due to our assumption that this is just how the world works, conditioned as we are to expect competitions and prizes in all aspects of our daily lives. We suggest that this second possibility may be a bleeding out of prize logics across the particular moment in capitalism that we are gesturing to as late capitalism. Many things other than explicit prizes and specific competitions seem to be perceived and treated as such.

Over the last thirty years the way in which one buys publicly listed financial instruments (stocks, futures, options, etc.) in the United States has shifted dramatically. It used to be the case that you could call a broker in New York and commission an order. Then, your broker would send it to the floor of a stock exchange where a runner would sprint the order to a trader milling in some pit or another, then the trader would yell his order to his colleagues and find a buyer/seller for your order. Often this buyer or seller would be a market-making trader (or a specialist), a representative of a proprietary trading firm who made money ensuring that there would always be a liquid market in the pit. This market-maker would both buy and sell, and then collect the spread between as profit. Endless repetition of this sort of market-making would make for a living. You, in turn, would pay a commission to your broker and that would be that.

However, in the last few decades, the United States Securities and Exchange Commission (SEC) has interpreted its authority to create a national securities market to mean that trading should be electronic via networked limit order books, and buyers and sellers should be aware of the best prices as near instantaneously as possible (MacKenzie et al. 2012, p. 281–83). As a consequence, trading has fragmented across more than a dozen exchanges in the United States (in addition to 55 “Dark Pool” or “Alternative Trading Systems” managed by financial service firms according to their own rules of order prioritization and fulfilment (“SEC.Gov | Alternative Trading System (‘ATS’) List” n.d.). This, coupled with derivatives trading primarily happening in servers in Chicago suburbs and equities trading primarily happening in servers outside of New York, has created a total technological transformation of the securities industry (MacKenzie & Pardo-Guerra 2014). Electrification has led to demands for up-to-the-nanosecond information on

markets across the country, as well as automation and algorithm-ization to allow trading to happen at the speed of information, far beyond what humans can handle.

One remarkable encapsulation of this is the “flash crash” in which, on 6 May 2010, over 4 minutes or so, the Dow Jones Industrial Average lost “998.5 points (or more than 9 percent), equivalent to around one trillion dollars” (Borch 2016, p. 351). Though the exact cause of the flash crash is hard to parse, it appeared to be due to some combination of mechanical trading algorithms getting stuck in a positive feedback loop and automated and linked trading strategies responding to that loop far more quickly than any human could cope.

The exact cause of events like the flash crash is not our concern here. Rather, our concern is with the way in which reporters and journalists seize on the possibility of events like the flash crash and the algorithmic and informational speed they entail to typify new forms of markets and focus academic and journalistic scrutiny (as in Borch 2016). We are curious why “Flash Boys” (Lewis 2014) and the “high speed arms race” become *the* agenda, the MacGuffin for imagining markets, and why high-frequency algorithmic trading fills up whole journal special issues (*Economy and Society* 45(2)), when there seem to be no equivalent blockbuster literary events or extended sociological scrutiny for the rise of passive investing (e.g. Wigglesworth 2018) or why trading volatility seems to stabilize at comparatively low levels for long periods of time (“Why Is Volatility So Low? Some See Crowded Trades, Minsky Moment - Bloomberg” n.d.).

In short, we are curious about the effects in knowledge production and what is included and occluded by focusing on the imagined prize to the exclusion of other stories about markets,

or the larger story of how people structure markets via regulation and law. Here, it is not so much that anyone explicitly designed a prize for the best story about the fastest order router. Rather, it is as though the representational community responsible for understanding finance and transmitting that understanding to the rest of society, without any formal deliberation or explicit consideration, nevertheless decided as a group that 1) there was (and is) basically a single prize at stake among market actors, 2) that the representational community themselves would *also* compete to describe that prize (as in the financial journalist and academics cited above), and 3) that the competition would basically be a contest. It is not so much that there was not a prize for a subset of traders who *needed* to be the fastest to make their trades (they exist and act exactly like that). And it is not so much that other traders do not have to deal with them (directly or indirectly, everyone on the market spends a little bit of time doing just that). It is that the whole rest of the financial universe is left out of the sprint against the speed of light, both materially and representationally. We suggest that a focus on the high-speed arms race and all its flashy material appurtenances may have hidden other market dynamics subject to less overt forms of competition but equally consequential for market behaviour, because representational specialists acted as though there was a singular competition with a singular prize. Reporters and academics, in other words, followed the MacGuffin, which worked, as all MacGuffins do, to organize their attention.

The Contest as Social Drama

Laboratory Drama

As the Bioluminescent community project progressed throughout the spring, Scroggins and his colleagues spent several meetings watching videos made by winning iGEM teams. The videos had fantastic production values and made for compelling viewing. Each demonstrated the possibilities inherent in the creation of the standardized library of biological parts and assemblies the iGEM competition sought to create. There were sensors built from bacterial plasmids that lit up in a rainbow of colours as differing toxins and pollutants were detected and bacterial plasmids used as tiny automata in the service of manufacturing precious molecules. The videos were a cunning element of the contest as trap. We had set out with a straightforward project, a lamp that works via bioluminescent action rather than electricity, designed as an apprenticeship into lab work. Yet, within a few weeks, the allure of the iGEM videos and the promise of access to BioBricks and recognition at the jamboree had transformed the goal of the project into creating a platform for engineering bacterial plasmids. No doubt our direct move to building an engineering platform, a Google or Facebook for plasmid engineering, was a direct result of the entrepreneurial savvy at BioCurious. The half dozen veteran entrepreneurs immediately recognized that the ultimate prize of late capitalism, a platform that others are compelled to use, was there to be seized. And with that, we transitioned from making DIYbiologists for BioCurious to entering and winning the iGEM competition.

Our decision to change course, revealed the iGEM competition to be, for our purposes at least, little more than a MacGuffin. Today, iGEM accepts teams composed of high school

students, university undergraduates and graduate students, and community laboratories, but in 2012, iGEM only accepted university teams. However, being in Silicon Valley and with a cadre of formerly successful entrepreneurs at the helm, we considered the question of whether or not a “community lab,” as opposed to an academic lab, could enter the competition to be an open question, so we emailed the iGEM committee, assumed we would receive a positive response, and waited for our allotment of BioBricks to arrive in the mail. The iGEM organizers, though, were cagey, initially signalling that they would allow our entry but eventually backing out on the grounds that community labs were just too much of an unknown, leaving us without plot or purpose. The library of iGEM parts could not, for reasons of liability, be made available to laboratories unaffiliated with an academic laboratory.

Following the evaporation of our chance to enter the iGEM competition, a decision was made by one of the serial entrepreneurs in the project to befriend a postdoctoral researcher at a local university whose laboratory contained the full iGEM library. Though we were banned from entering the iGEM competition, we rationalized that we could still enjoy the fruits of victory by bending the rules of the competition. Through a bit of what is often called “social hacking,” the entrepreneur convinced the postdoctoral researcher to duplicate his laboratory’s library of iGEM parts and smuggle them, without the legally mandated Material Transfer Agreement, to BioCurious. This exercise in piracy was justified by appealing to the intertwined spirits of competition and capitalism and specifically to the long history of rule breaking in the formation

of Silicon Valley. The future is here, we argued, better to seek forgiveness tomorrow than to ask permission today.²

Unfortunately, having laid hands, or rather petri dishes, on the BioBricks we coveted but were denied, we discovered to our surprise that none of them worked as described. Our time, our trouble, our organization, and our work were all pulled in a particular direction by the promise of a competition that we not only failed to win but failed to enter! And yet the pull of the prize, both the library of standardized parts and the promise of a direct-to-consumer market for genetically modified organisms, continued to work within BioCurious. The year after the Bioluminescent community project failed to enter the iGEM competition, three BioCurious members who were veterans of the Bioluminescent community project, raised a half million dollars via a Kickstarter campaign to launch a start-up company with the aim of engineering a houseplant to glow like a lamp at night.

Lost as we slid down the funnel of the iGEM competition was any focus on bio-art as discussed in the initial Bioluminescent meetings or critical interventions into the social and environmental conditions in Silicon Valley – air and water sensors or DNA barcoding that investigated food safety – that we had initially thought to pursue. Also eclipsed was the very notion of DIYbio as a biological science directed by amateur biologists and informed by their interests and concerns. Eighteen months after the start of the Bioluminescent community project, as Scroggins' fieldwork was ending, BioCurious still had not worked out how to make enough

² This incident is reported at length in (Souleles & Scroggins 2017).

DIYbiologists to support the laboratory on member dues. Instead, the BioCurious board of directors was forced to rely even more heavily on corporate donations to keep the lab afloat, slowly abandoning the idea of making DIYbiologists in favour of viewing the laboratory space as an informal venue for corporate sponsors to recruit unemployed or unaffiliated professional scientists and for serial entrepreneurs to test proof of concept ideas.

What has been gained by iGEM? What interesting ideas have made their way down their funnel? For one, teams entering the iGEM competition no longer have to submit fabricated assemblies, only information written as a standard protocol that describes the biological parts developed during the project. The cost of DNA synthesis, partly due to economies of scale generated by iGEM, has fallen far enough in the ensuing decade to make information the commodity of circulation for iGEM. And information is the commodity of record for iGEM, with more than 300 teams from over 40 countries entering the competition each year. The upshot for iGEM has been the creation of a database of talent and a library of parts, all of which can be, at some future date, monetized. More important, perhaps, is the iGEM competition's ability to set the terms of a social drama over the ends of synthetic biology by trapping the excitement and attention of aspiring synthetic biologists.

Market drama

Souleles became familiar with the high-speed arms race in the course of three years of fieldwork he has been conducting in New York, Chicago, Washington D.C., and San Francisco,

studying algorithmic trading as part of a team research project based at the Copenhagen Business School. Souleles and his colleagues were trying to understand how market behaviour, trading, and the allocation of wealth via financial channels have changed due to electrification, automation, and the creation of a nationwide network of financial exchanges. Again, high-frequency trading is only a subset of these changes. So, from 2017 onward, he has been conducting interviews with traders, regulators, exchange workers, and portfolio investors to understand how markets work and how money is moving around. Souleles would interview and observe and take the findings back to his team who then would integrate them with their fieldwork and use them to build up an agent-based modelling platform to simulate various market conditions.

As is often the case in ethnographic work, Souleles heard about whatever was on the mind of his informants: other financial dynamics and concerns in dribs and drabs through the course of his interviews and observations. One financial analyst starting an app-based retirement planning company noted that the rise of passive investing is what is shaping markets in his estimation. He felt that there was so much trading volume in electronically traded funds and index funds, set automatically in the service of portfolio balancing, that natural investors making informed decisions—speculators, value investors, hedge funds, etc.—were losing their ability to move markets. This, in turn, pushed prices up and volatility down, leading to an inscrutable market environment. His response to this was to make all this passive investing more accessible to people in their retirement saving, likely expanding the proportion of the market moving

automatically and in lock step. Speed here is secondary and becomes irrelevant as everyone trades automatically and quickly.

Another dynamic Souleles saw was the creation of alternative trading venues, or dark pools. Initially, financial services firms created these trading venues in order to give mostly large institutional investors shelter from high-frequency predations on open markets. As dark pools have expanded, however, they have introduced trading dynamics of their own. Often, large retail trading platforms like E-Trade would sell their order flow to large equity market makers, who, in turn, would internally fill those orders, never sending them to public markets. Moreover, these trades could be filled by logics other than time priority, neutering the advantage high-speed transmission and information technology might grant.

What Souleles also saw was the commodification of high-speed trading technology. Any advantage accrued by being the fastest seems to have a fairly limited half-life. Access to microwave towers for the transmission and reception of market data was no longer the province of technological specialists; an old firm can simply purchase this sort of data access now. Ditto for server colocation in exchanges, as well as access to intelligent execution algorithms to avoid being taken advantage of by high-frequency traders. This sort of commodification led one partner in a proprietary trading firm to observe that the technological part of their job has perhaps been expensive, but they have always managed to stay ahead of it. All told, Souleles's informants could readily point to all sorts of things aside from the high-speed arms race that were affecting markets due to the rise of computerization and algorithms. This, however, would not be

apparent from most journalist or academic accounts. They only seem to have their eyes on the prize.

The Universality of Contests in Late Capitalism

The main thing I've learned over the years is that the MacGuffin is nothing. I'm convinced of this, but I find it very difficult to prove it to others. – Alfred Hitchcock

We have focused our attention on how contests, using lures both material and symbolic, organize competitive relationships. We have drawn on (TK this volume)’s elaboration of Simmel to argue that these relationships are not spontaneous or naturally occurring. Rather, the contests that organize competitive relationships are both partially designed and partially natural. As denizens of late capitalism, our common sense and everyday experience of navigating markets and contests tells us that competitive relationships are a natural state, that we spontaneously organize ourselves into winners and losers mediated by the terms of contests implicit and explicit (see also Varenne & McDermott 2018). While competition is one state of human relationships, it is by no means the only, or the most compelling, state of human relationships. We have taken small, but important steps, in this chapter to demonstrate how competitive relationships are naturalized through the design and ubiquitous deployment of contests, implicit and explicit, in late capitalism.

Designing contests and luring both the unsuspecting and wary into them, as Austen notes of 19th century contests of the heart, is “a manoeuvring business.” And, in our late capitalist moment, the business of organizing social action through prizes is booming. Social dramas must

be fully imagined and carefully materialized, lures must be carefully placed, and their funnels made as invisible as possible. Throughout, we have emphasized the stakes of these contests, from marriage, to the Nobel prize, and onto to the smaller, but no less dramatic, stakes of the purpose and direction of a DIYbio project and the imagined winner of a high-speed trading contest. Scroggins has shown how a prize-seeker can be trapped by a savvy prize creator, and that the ends of the prize creator can come to replace those of the prize seeker, even when the competitive relationship is only imagined. This is one type of social drama. Souleles has shown how attention can be trapped. High-speed trading is a MacGuffin, a plot device that directs attention towards particular events and elides others, which may be more important and relevant to market formation but lack the dramatic element of competition between rivals.

Our lens for understanding how contests organize competitive relationships has been the anthropological literature on traps and trapping (Gell 1996; Seaver 2018; Mason 1900). Traps are a useful lens as they, as we have argued of contests, are both partly natural and partly design, inhabiting the liminal space between natural and artificial. Following Mason's (1900) lead, we have emphasized the social drama unfolding between trapper and trapped, using the work of the consulting firm McKenzie as an exemplar of a contemporary trapper who deploys a wide range of lures (prizes), to attract specific kinds of individuals and organizations into particular kinds of competitive relationships. Further, we have argued that an effect of organizing these contests, made explicit by consultants like McKenzie, is the replacement of the contestants purposes and means with those of the contest organizers.

Though explicit and implicit commercial contests are a powerful mechanism for the naturalizing competitive relationships, they do not exhaust the range of traps, contests, lures, and prizes we must confront in commercial, academic, and personal spheres. All of us, in even the most sentimental and private spheres of life, whether taking the field intending to seize the prize or not, are caught in the netting of competition and the stark social drama of success and failure.

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