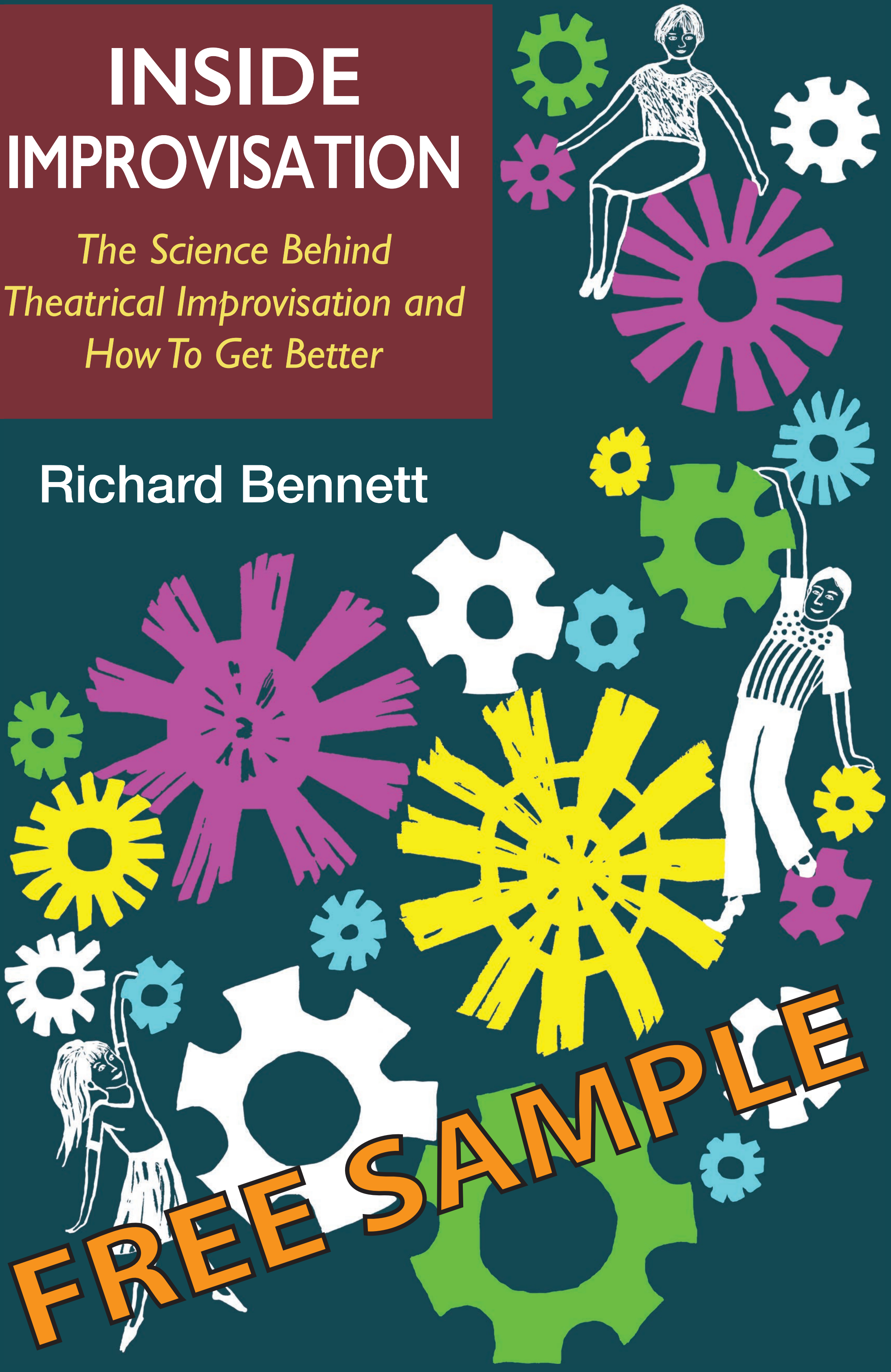
INSIDE IMPROVISATION

The Science Behind Theatrical Improvisation and How To Get Better

Richard Bennett



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For Mum and Dad, who saved me.

For Molly and Louise, who fixed me.

For Jason Chin, who confirmed my path.

And for everyone gracious enough to listen and consider.

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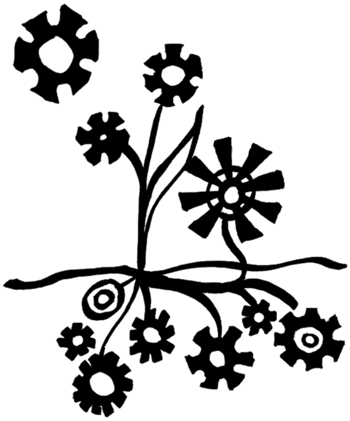

Preface

This book came about through a personal struggle I had with learning how to be a better improvisor. What started as an interest in learning more about the confusing contradictions between teachers and their theories on how to improvise, turned into an analysis of what improvisation is, what happens inside us when we improvise, and led to the discovery of a lot of new information on how to become a better improvisor. More than ten years in the making, the resulting book is very different to what I'd originally planned.

Like most improvisors, I don't live in Chicago or Calgary where the main improvisation "gurus" have traditionally resided, and so I went through the impro training system that's here in Sydney, Australia, learning improvisation according to the rules of my teachers and their system. Like most improvisation communities outside the main U.S. and Canadian hubs, we have our own unique style of play[1] — a style of play that originated back in the mid–1980s, and which has been taught and performed pretty much the same for the last 30 years. If you live in such a city, I suspect you also

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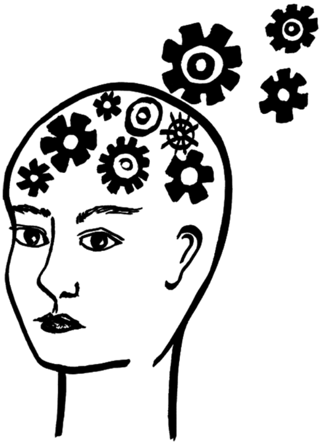
[1] Lyn Pierse's book *Improvisation: The Guide* — previously *Theatresports Down Under* — details the rise of *Theatresports* in Sydney and the unique style of play that has developed here.



The improvised mind

Improvisation was developed mostly by trial and error. As early practitioners in different parts of the world stumbled across techniques and exercises that seemed to work, these almost magical incantations would be added one by one to their model of how improvisation works. At the same time, science has been busy working out how our minds and bodies work, and a lot of this research now explains why various improvisation methods work the way they do, and why those early explorers found the solutions they did. This also explains why certain exercises are better than others, and what improvisors can to do to become better improvisors.

With the increased use of applied improvisation — improvisation used as a tool for life, business or other creative endeavours — the way improvisation is taught is changing. Eventually, teaching the first principles won't begin with being in the moment, being fearless, and playing classic theatre games and exercises while facing out behind the fourth wall. The first principles will soon be what happens in our brains, and how that leads to and supports spontaneity and improvisation.

So, what does happen in our brain when we improvise? To answer that question, we need to know how our brains works, which is something scientists have been trying to figure out as far back as the early Greek philosophers. However, in the last 50 years scientists have made a lot of headway, and while we still don't know everything, we do now have some pretty strong theories to explain what is a very complex system of processes.

Sigmund Freud

In the late 1800s and early 1900s, Sigmund Freud, the father of psychoanalysis, theorised that our minds are partitioned into two main areas, which he called the conscious and the unconscious. The conscious is where we do our thinking, so any thoughts you have right now are in your conscious. You may be thinking about what this text is saying, but you might also be thinking about how you're holding this book or the device containing it. You might also be thinking of when you should put the book down and have a break or have dinner. This is all our conscious thinking.

On the other hand, the unconscious is where we have any additional thoughts that we don't realise we're having. Freud reasoned that the unconscious is an area of our brain into which information is stored and hidden by our controlling conscious, and is thus not available to our conscious thoughts. Freud's idea was that certain conscious thoughts can be pushed into the unconscious in certain circumstances, such as with emotional or physical stress, or as undealt with desires. The terms "repression" and "repressed memory" are often used to explain this, but conceptually it's more like suppression, in that the controlling conscious suppresses certain desires and concepts into the unconscious.

What this means for improvisation is that there is potentially information available to us of which we're not consciously aware, and that this can unconsciously change our behaviour, particularly while improvising. Freud identified the split between the conscious and the unconscious, but it took a later psychoanalyst — a friend and collaborator of Freud's — to determine where the real control of our mind is located.

Carl Jung

In the early to mid-1900s Carl Jung took the unconscious a step further, surmising that while the conscious does repress information into a personal unconscious, there is also a "collective unconscious" which collects and organises our experiences and knowledge of the world. This collective store of knowledge only allows information into the conscious as and when it is

very little it allows us to see as consciousness. The unconscious is where most of the useful work happens, and drawing upon that in improvisation is going to give us better quality work.

The inner game of everything

We've looked at consciousness, and some of the theories for what it is and how it works, so let's now look at the effects of harnessing the unconscious to work for us.

The term "thin–slicing" was coined in 1992 by Nalini Ambady and Robert Rosenthal, in their 1992 paper *Thin Slices of Expressive Behaviour as Predictors of Interpersonal Consequences: A Meta–Analysis.* Thin slicing is the theory that from very short observations of expressive behaviour, our unconscious can predict objective outcomes over the long term. What this means is that the unconscious can predict things based on limited experience.

The classic example of this is their later 1993 paper *Half a Minute: Predicting Teacher Evaluations From Thin Slices of Nonverbal Behaviour and Physical Attractiveness.* They found that showing a short — under 30 seconds — silent video clip of a new teacher to new students, would yield similar judgements of the teacher as those given by the same students at the end of a semester. The same was the case in the judgement of school teachers by school principals. In each case the participants only needed to see 30 seconds to know what the teachers were really like.

Thin slicing is the ability of our brains to make fast objective judgements based on previously understood behaviours. Theoretically the unconscious looks for recognisable patterns in sensual input, and this allows it to make decisions quickly based on comparing these patterns to ones the unconscious already knows. The unconscious then begins to take action if necessary, before the conscious is even aware of it.

Malcolm Gladwell's 2005 book *Blink* popularised *thin–slicing*, but a much earlier book marked the practical use of techniques such as thin slicing, muscle memory and the unconscious.

In 1974 Timothy Gallwey wrote his book *The Inner Game of Tennis*, the first in a long line of sports psychology books which highlighted the ability of the unconscious to do much of the mental processing required to play sport at a high level, or in this case tennis. He reasoned that by making the conscious

These pages are not included in the free sample.

https://www.academyimprov.com/inside-improvisation thought allows the conscious to sample more of the unconscious. This in turn causes more of the unconscious to become conscious, usually highlighting thoughts that have been repressed or which were affecting you but you were unaware that they were doing so. In a way, meditation makes the inner game of tennis, conscious.

Mediation trains our mind to do three things: to *not think*, to *pay attention* and to *switch attention*. For improvisors, these are three of the core skills upon which improvisation is built, and yet they are the least often acknowledged skills for beginner improvisors.

Meditation aside, improvisors do typically over time end up being present and in the moment, even if they don't realise that they are. This is usually due to a combination of trial and error, practical performance experience, and exercises which induce presence without specifying that this is what is actually happening. And many improvisors don't realise that most of their warm up exercises are doing the same thing as meditation: making them present, making them pay attention, and making them more able to switch attention.

The great thing about mindfulness is that it has additional effects aside from putting you in a good state for your unconscious to improvise for you. These include reducing anxiety and rumination over challenging or threatening events — such as improvising in front of an audience. Mindfulness gets our conscious filtering and control systems out of the way, and it removes uncontrolled emotion which induces conscious thinking, thus relaxing us and allowing us to once again let go. Conversely, theatrical improvisation has also been used to treat anxiety and depression[30], due to the mindfulness it induces.

Studies have shown that the more experienced meditators are, the faster and easier they are able to switch into a state of mindfulness, which is great for improvisors and one of the reasons why many experienced players don't need too much warm up before they perform. And as you meditate, you learn more about meditation's effects, and you begin to learn how to induce those effects more quickly, eventually to the point where you often no longer need to meditate in order to do so.

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[30] *Second City* in Chicago for example, runs Improv for Anxiety workshops.

Mindfulness is a cognitive state that is very important for improvising. Meditation can train you to be mindful, but so can years and years of performing improvisation. Together however, they will give you more insight into mindfulness and the effects it has on improvisation.

Exploring in the dark

Most of the well known early practitioners in the development of improvisation as we know it today, did not understand how improvisation works in our minds, or which internal processes are utilised when we improvise. They followed the traditions of their forebears and the results of their own experiments into what did and did not seem to work.

All of the above concepts, theories and processes work together in allowing us to improvise. They provide the beginnings of a platform upon which improvisation may occur, and begin to explain why the experiments of those early practitioners either worked or did not. We'll look at a lot more of the science in later chapters, but in order to continue, we now need to know what improvisation actually is.

What is improvisation?

So theatrical improvisation is just making stuff up right?

No.[31] Far from it.

In *Whose Improv is it Anyway?*, a study of gender, race and power in the Chicago improv community[32], Amy Seham defines improvisation as a combination of and fluctuation between "making do" — being consciously creative within the limits of what we've been given — and "letting go" — the surrender of conscious control — allowing us to channel artistic or divine inspiration. A wordy yet appropriate definition which fits nicely not just for improvised comedy, but for all types of improvisation, whether it be music, sculpture, painting, dance, public speaking, or other forms of applied improvisation.

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[31] Yes, I do realise the irony in not saying Yes to the very first question we ask of improvisation.

[32] Some in the Chicago improv community feel Seham's book is overly selective, choosing groups that fit the premise of her study, while ignoring the many groups or initiatives which did not. In recent years however some of the big schools have taken strong action against gender bias and the ill treatment of women, showing that regardless of whether such initiatives existed at the time, there were still problems. Aside from that, her book still gives great insight into the development of improv in Chicago and improv theory in general.

Michael Gellman, a director with *Second City* and author of the book *Process: An Improviser's Journey*, says improvisation is the craft of *acting without text*, which is a more tangible definition of what we do with theatrical improvisation. The ability to improvise is certainly a craft, but it could also be argued that enacting the craft is an art form, and therefore it can also be art. But acting without text also includes improvising dialogue within written scenario plays which could be formally blocked — the actions planned out — in rehearsal.

Both are good definitions that improvisors would agree with, however neither of them gives us a real sense of what improvisation actually is. Seham's is more of a lofty academic definition, and Gellman's is more of an open ended "everything is acting" approach. And being simple statements, neither of them have much practical use as a working definition of improvisation.

Going back further, in their 1967 book *Improvisation*, John Hodgson and Ernest Richards state that improvisation is "a means of exploring in which we create conditions where imaginative group and personal experience is possible." This is also a good definition, but to the uninitiated could also include activities such as group therapy for example.

Hodgson and Ernest go on to say that improvisation is "the spontaneous human response to an idea or ideas, or a set of conditions." It isn't, it's more than that. But in conjunction with our science so far, this leads us to our starting point and first key skill required for improvisation.

Spontaneity

Invention is not the same as spontaneity. A person may be the most inventive without being spontaneous. The explosion does not take place when invention is merely cerebral and therefore only a part or abstraction of our total selves.

— Viola Spolin

Too much structure, too many tight rules, and a sense of significant and fearful consequences should those rules be broken all inhibit spontaneity. On the other hand, too little structure and too much ambiguity also

Unlike priming, the mirror system kicks in automatically and almost unconsciously, whether we're aware of it or not. Not only that, but when we watch other people doing things, we already automatically know what they're doing or how they're feeling, and we often feel as though we want to do them too.

Group mind

The phrase "group mind" conjures up images of magical or supernatural out–of–body experiences, where a group of players can build amazing scenes or entire shows that no mere mortal could equal.

Other common definitions of group mind include: my scene partner and I think the same way; my scene partner and I both know what should or will happen next; we all think the same way at the same time; we can count to 20 without talking over each other, but only after we've tried a dozen times and failed; or, knowing exactly what our scene partner is about to do.

All these definitions are bad for improvised performance. I don't want to be thinking the same thing as my scene partner, or even the same way as my scene partner. Vibrant, dynamic and exciting scenes come from the differences between players, not the similarities. We each bring our knowledge, experience and point of view to improvisation, and it is the interaction between players trained in improvised techniques, that generates great improvised performances. I want to discover new things with my scene partner, not simply give life to what is in my own conscious.

And then there's the mystical definition that something inexplicably magical happens to a group when they perform. In *Truth in Comedy* it states that:

> *The ImprovOlympic workshops constantly prove that a group can achieve powers greater than the individual human mind. Scenes created have turned out to be prophetic, and ESP has actually occurred on stage. Players are able to speak simultaneously, at a normal rate of speed, saying the exact same thing, word for word. Some teams became oracles on stage, answering the great questions of the universe, one word at a time, leaving audiences chilled and astonished.*
>
> *Audiences have witnessed the group mind linking up to a universal intelligence, enabling them to perform fantastic, sometimes*

1600s to 1920s

Acting and theatre have been around for millennia, sometimes scripted, sometimes guided by a story or rough outline of a scenario, and sometimes completely improvised. But theatrical improvisation didn't really take off as an art form, because scripted or predefined narratives tended to become better each time they were performed, so why bother to improvise them?

For the very few literate civilizations — such as the ancient Greeks — these works were fairly easy to document and accurately reproduce[51]. But for everyone else, at least up to the 18th century, narratives had to be passed on by word of mouth, and this is what helped lead to the initial development of theatrical improvisation.

Commedia dell'arte

Commedia dell'arte is a partially improvised comedy form popular initially in Italy from the mid–16th century, that then spread to the rest of Europe. *Commedia* uses predetermined scenarios and a set of stock masked characters

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[51] This is why many more plays come from literate civilizations than any other — they had the ability to archive culture with the written word.

Living Newspaper

The *Living Newspaper* is an improvised show format, where improvisors improvise scenes inspired by that day's news stories. Rarely referred to by name, and originally unrelated to improvisation, it became the basis of one of the most popular improvisation show forms of the 20th century, and has a history going back to the early 20th century. Until the advent of immediate personal communication such as SMS and social networks, no other theatre format could better demonstrate the immediacy of improvised theatre.

In 1919, the Russian government created the *Living Newspaper* to disseminate Soviet news and propaganda. The news was literally read to the public while moving picture images and actors were at the same time used to support the commentary. The *Blue Blouse* theatre collective was created in 1923, which continued to spread across Russia, and by its height in 1927 boasted over 5000 such troupes.

Whether Moreno's 1921 *Theatre of Spontaneity* was influenced directly or indirectly by the *Living Newspaper* or conversely whether Moreno's work somehow influenced *Living Newspaper*, is unclear. However, in the 2000 paper titled *Living Newspaper. Theatre and Therapy*, author John Casson makes strong cases for both.

The concept of a *Living Newspaper* was popular around the world throughout the first half of the 20th century, because it narrated the news in an era without television or video — something the Greeks and Romans were also doing back in their day. Thus, we see slightly different versions of it appearing throughout.

We see it in Moreno's work, in Russia's propaganda, in other countries across Europe, Asia and South America, as well as in cities across the U.S., both as independent and as federally funded workers' theatres through the WPA — Work Projects Administration, a federal U.S. agency for public works.

The *Living Newspaper* influenced David Shepherd in the development of theatrical improvisation, with him originally wanting to open a workers' cabaret theatre. This led to Shepherd's founding of *The Compass Players* — that coincidentally also opened its show with a *Living Newspaper* set which incorporated news events as scene suggestions. *Second City* even later considered developing a TV show titled *The Living Newspaper*[62] around 1961-1962. The technique was also used in Britain variously over the years, including in workshops by the writers' group at the Royal Court Theatre in London which ran from 1958 to 1959, of which Keith Johnstone was a member.

In December 1970, Brazilian theatre director Augusto Boal started developing his *Newspaper Theatre* in São Paulo, with his *Nucleus Two* group of the Arena Theatre. This is the first theatre form he developed that later became part of his 1974 book *Theatre of the Oppressed*. *Newspaper Theatre* is a set of ten techniques for using the current news in theatre performance, and while most of the techniques require research, analysis and preparation, one is for using improvisation to immediately act out the news. Boal had been part of a psychodrama group from 1967 to 1968, so he was also familiar with Moreno's work.[63]

It is impossible to identify the inspiration for any of these *Living Newspapers*, partly because there were so many of them, but also because it is — perhaps simply retrospectively — such a simple, obvious and popular idea.

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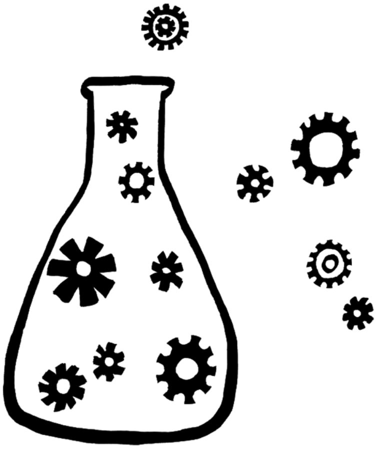
[62] According Joan Rivers in Jeffrey Sweet's book *Something Wonderful Right Away*.

[63] In Boal's autobiography *Hamlet and the Baker's Son: My Life in Theatre and Politics*, he says that the idea for *Newspaper Theatre* came from some earlier work of his and Arena Theatre playwright Oduvaldo Vianna Filho's. This possibly refers to their work with the Centro Popular de Cultura — Brazilian Centre for Popular Culture — a left wing organisation for grassroots cultural initiatives which existed just before and after Brazil's military coup d'état of 1964.



Spontaneity science

Moreno and other early practitioners began to explore the nature of spontaneity, a precursor of today's theatrical improvisation methods. Moreno's actors were already trained in acting and theatre, so all they had to focus on was how to be spontaneous and how to apply that to their craft.

Training ourselves in being spontaneous is different from training ourselves to improvise. Spontaneity is required first, which then allows the unconscious to use the scene progression and theatre techniques that it has learned and internalised. Yet many of the exercises we use today in improvisation, teach us both spontaneity and scene progression at the same time, making them difficult to use in other non-theatrical domains without being adapted in some way.

For example, a scene painting exercise will help with spontaneity, scene initiation and scene progression skills. The spontaneity aspect may be useful for training improvising jazz musicians for example, however the visualisation and storytelling aspects may not. Recognising this, gives us insight into how theatrical improvisation exercises can be adapted into other domains including applied improvisation. And in order to be able to do that, we need to better understand spontaneity and its causes and effects.

Dual Task Processing

Only in recent years have we begun to understand how our brains process tasks, how they prioritise them and how many they can handle at any one time. The problem is called dual–task processing, because it happens while performing two or more tasks at once. For many years there were two competing theories of dual–task processing: a serial processing central bottleneck theory; and a parallel processing capacity sharing theory.

The serial processing model theorises that each task is queued at a central processing point in the brain, and each task is processed as it comes to the head of this queue, one task at a time. In research literature this is referred to as the psychological refractory period or PRP, because experiments have shown that two cognitive tasks can take longer to perform at the same time than if they were performed one after the other. This is because there is a delay in the queue while the first task completes. With this theory, it is not possible to perform any more than one task at a time, and it is the speed of the processing, and the breaking down of larger tasks into smaller subtasks, that gives us the impression that we can. Multitasking for example, is really dividing attention between multiple tasks, breaking them down into individual subtasks, and the brain then processing them one at a time. Our brains don't process two tasks literally "at the same time".

Other studies however have showed that our brains are able to perform some tasks at the same time, in parallel, without either task having to be queued at a central processing point. Within this model, there are still questions about whether the brain simply splits processing evenly amongst the tasks, or whether it provides some tasks more brain power than others based on some kind of priority. This parallel model is referred to as the capacity sharing model, even though there are questions about how brain capacity is being shared.

In the mid to late 2000s however, a combined model began to be proposed which accounts for the anomalies between the two models, and explains a number of other observable effects with how we process cognitive tasks. The idea is that a central processing point does process single tasks from a queue, but then other tasks or subtasks which utilise other parts of the brain, such as sensory inputs and outputs or memory, can process in parallel, either while they are in the queue, or after they've been processed at the central processing point.

In their 2006 paper *Dynamics of the Central Bottleneck: Dual–task and Task Uncertainty*, Mariano Sigman and Stanislas Dehaene refer to this as a hierarchical model of cognitive architecture. They say that there is a hierarchy for processing, that many tasks are handled one at a time, but other brain systems that provide functions that aren't required by the current task, can still process tasks in parallel. Not all systems can parallel process their own tasks, but most can process one task while another system is processing another task. Visual attention — turning and looking at something that catches our eye — for example, can't parallel process with identifying what we're looking at, but visual attention and memory recall can.

The more interesting part of this for improvisors, is that as we process the same two tasks over and over, our brains learn how to process them faster, because it builds a mental model and cognitive muscle memory that can be repeated each time those two tasks need to be processed. This means that the more we perform the two tasks, the less time they need to spend with central processing, and the more they can be handled by other brain systems in parallel. Basically, you can train yourself to perform two tasks in parallel, by continually performing them serially — one after the other.

A classic example of this is patting your head and rubbing your stomach at the same time. At first you'll find this difficult, potentially with a high cognitive load — lots of thought processing — but later you'll find it easy and be able to perform other tasks, even while patting your head and rubbing your stomach. Drummers are a classic example of this, using all four limbs to control different parts of a drum kit all at the same time.

The more practical improvisation example of this is theatre games, and more particularly, theatre games or scenes with a number of different game rules. The more we play a game, the easier it becomes. This means that playing the same games all the time is going make the games easier and less risky, which could be a problem if the point of the show or improvisation is taking risks in front of an audience. When challenge and risk are helping to drive the audience's interest and response, this will negatively affect the quality of the show.[64] Unless of course the improvisors then begin to fake risk, which is also a fairly common occurrence.

Divided Attention

Divided attention is the conscious focused attention on more than one thing at the same time — for example holding a conversation while watching a kettle boil. And because each focused attention is a processing task, it is affected by the dual–task processing effects described above. Even though we think we're paying attention to two or more things at the same time, in our brains we're actually switching back and forth between them.

Increased divided attention can cause cognitive overload due to what's called interference. Because the queuing and processing mechanism in our brains can't keep up with the required cognitive load, this slows down the conscious processing, meaning that it has less filtering and control over the unconscious and other subtasks within the brain. As a result, we become more present and there is less rumination and less of that inner critic that constantly talks to us inside our heads. This is why many theatre exercises involve divided attention — concentration on two things at once — because they induce presence while teaching our brain the patterns it needs to better parallel process these tasks the next time it is presented with them. The originators of these exercises realised that divided attention had an effect on presence when the attention was split between two tasks which use the same functions within the brain. They didn't know the reason, but they knew the effect.

This has an impact on improvisation because it means we can train our brain to optimise certain tasks. Think of a theatre game which has divided attention, such as an "Alphabet" scene, where each successive line of dialogue must start with the next letter of the alphabet. Because attention is divided between keeping track of the alphabet and lines of dialogue, at the same time as performing an actual scene, this causes cognitive dual–task processing overload, as the players are switching attention back and forth between the two tasks.

Cognitive overload reduces conscious processing. But the more we perform or practise this type of scene, the more we learn to parallel process it, the

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[64] Keith Johnstone suggests that players should be given the opportunity to master difficult games, and that it is the scene content that engages the audience, not the risk or mechanics of the game. I'd suggest that it is all of these things.

past, thinking of the future, day dreaming, mind wandering, and other non-goal oriented cognitive tasks. All bad things for improvisors. In depression for example this can lead to rumination, and so DMN modulation techniques have been developed to prevent spending too much time or focus in this mode. Meditation is just one example of this, because mindfulness deactivates the DMN. Sleep deprivation also reduces activity within the DMN when it is activated, but we'll cover sleep in a later chapter.

When the task-positive network (TPN) activates to start processing goal oriented tasks, the DMN doesn't fully deactivate. There is still some limited activity that is useful during task processing, but for all intents we say that the DMN has deactivated. Likewise just because the TPN is active, doesn't mean that the DMN can't partially activate and compete for cognitive function, which can positively or negatively affect the ability of the TPN to complete its task. So for example if we are tidying up the lounge room, the TPN activates, and if our mind wanders, then the DMN reactivates, impairing our ability to quickly finish the tidying up.

When we improvise, we don't want to be thinking or ruminating, so we want to deactivate the DMN, or reduce the activity within it. Traditional meditation and mindfulness exercises train our brains to deactivate the DMN. This doesn't mean that the TPN must then be active, it just means that the DMN and its self analysis and thinking behaviour is not. Meditators and improvisors do however deactivate the DMN and intentionally activate the TPN for focused attention processing and their trained theatrical improvisation processes respectively.

Improvisation isn't about not thinking. Improvisation is about trained task processing using a trained unconscious, while in a state of mindfulness.

Memory of the future

In 1985, Swedish neuroscientist David H. Ingvar coined the phrase "memory of the future" in an essay titled *"Memory of the future": an essay on the temporal organization of conscious awareness*. Ingvar identified the brain's ability to retain memories of possible predicted futures. He posited that if the information for events in the past — such as motor skills, sounds, or mental models — are stored in memory, then information related to future events must also be stored in memory. Otherwise we would not be able to comprehend the future, and the body would not be able to act on any information from the past or present.

It is thus often suggested that the brain is simply a prediction machine. And that its main purpose is to analyse and predict what will happen in the future and to prepare for any possible actions that these predictions may require. The memory of the future, is the remembering of possible outcomes and actions related to those predictions.

One of Ingvar's examples is the interpretation of speech, whereby past knowledge of speech recognition is used to predict intended meanings of words and sentences before they are complete. For example, if someone were to say to you "Evil can be cold and calculating", the brain has already predicted the intended meaning of "cold" as soon as it is spoken and before "calculating" ultimately clarifies it. Ingvar also gives the example of humming a known melody, where recognition is used to predict upcoming notes that have not been consciously remembered.

The unconscious is not just acting in the now, it is also predicting and acting on the future. And for improvisors this is a bad thing. Turning this future prediction off is often difficult for new players, but being spontaneous and in the moment, using the techniques we've already discussed, is how we prevent this from happening. We want to build in the moment using spontaneity, not predict the future and forward plan the path to getting there.

Flow

Mihaly Csikszentmihalyi's "flow" is often misunderstood. The dictionary definition of flow is often of something continually moving or streaming, but that's not the flow we're talking about. Then there's William James' 1890 term "stream of consciousness" — the depiction of a streaming out of continual thoughts — which often confuses the matter even more, and is often the interpretation used by improvisors.[66]

For Csikszentmihalyi, the term "flow" is used to describe a period of intense internal concentration and total immersion in an activity, with positive motivation and focus. It's a centring of attention and a loss of self–consciousness. When in flow, it can seem as if the world ceases to exist, time

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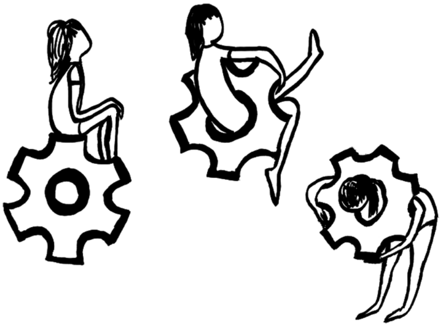
[66] Stream of consciousness is often applied correctly when discussing improvisation, but is also often confused with Csikszentmihalyi's flow.



Approaching scenes

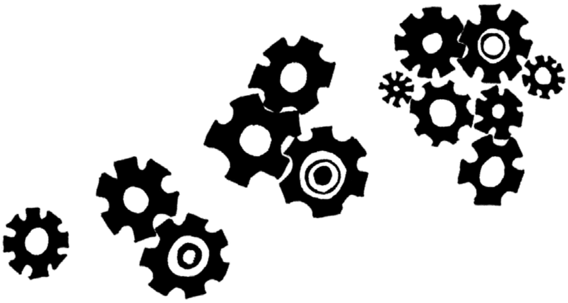
Much of what we've looked at so far, also applies to general improvisation and not just theatrical improvisation. We become spontaneous, we listen, and we respond with actions which come from our trained unconscious — our internalised skills in improvisation. What distinguishes one domain of the arts from another, is the internalised history and experience of our improvising.

In the case of musical improvisation, this might be the specific jazz improvisations a musician has been involved with, along with theoretical knowledge of music and the subtleties and nuances of the specific instrument they're playing. In theatrical improvisation, this is our history and experience of theatrical improvisation, both on stage and off, and the rules our unconscious has assembled to allow us to progress improvised scenes.

But different domains of improvisation also use different amounts of the conscious vs. the unconscious. Ultimately, as an ideal improvisor, our unconscious will be doing all of the work. But the practice of improvisation is rarely at the ideal level.

Thinking

As beginners, we are almost constantly thinking as we improvise. And during training that's mostly a good thing. Only by actively thinking about what



Scene progression

With the advent of improvised theatre, practitioners needed a way to be able to progress a completely improvised scene. Writers and directors are still to this day important in the creation of theatre, so how can improvisors progress a scene without them?

Spontaneity by then was mostly understood. We become present and spontaneous, and let our unconscious do most of the work enacting the internalised process of listening, agreement and action, with a little thinking thrown in for good measure. But spontaneity, listening, agreement and action aren't any use unless we have the knowledge and skills for creating theatre.

When using improvisation for developing characters, such as with Stanislavsky's active analysis, character acting skills are required for the unconscious to draw upon. Likewise, for example, with Mike Leigh's rehearsal methods — the actors work with Leigh on character acting and interaction between characters, having already trained as actors. And for developing scripts using improvisation, an understanding of story and plot is required.[82]

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[82] Not all script writers have a conscious knowledge of story and plot. Many have simply developed that knowledge unconsciously due to their improvisation or other experience.

In theatrical improvisation, we are improvising a scene. And all the spontaneity, listening, agreement and action in the world isn't going to allow us to improvise a scene, unless we already know how to make a workable scene from nothing. To do that, we need to understand and have internalised the skills required for acting and theatre practice, and more specifically the skills for scene progression.

Scene progression is the way we progress an improvised scene. It's what most improvisation training focuses on, along with general acting skills. Yet every method — Johnstone's impro, the Chicago method etc. — has its own unique approach.

Playback Theatre for example, uses a more character based approach, due to the fact that they are usually given a story to follow as part of their improvisation. They are given characters to play with, and are given most of the steps to follow that will progress their improvised scene before they begin the scene.[83] *Playback Theatre* does use some of the techniques we'll look at as part of improvised scene progression, but typically their scenes are prewritten by the story teller and they have no need to make up a new scene from scratch.

Moreno's Psychodrama, one of the inspirations for *Playback Theatre*, also acts out real life situations which have already happened, or which need to happen as part of a client's therapy. And in most cases there is no scene progression, just a replaying, or role playing in order to reach into the unconscious.

When Moreno was experimenting with improvisation in 1920s Vienna, he would come with already prepared story outlines and often written dialogue. This technique continued with groups in the U.S. through to the 1950s, with prepared story outlines in the form of scenarios. These scenarios would be a series of actions which make up the story, with spaces between actions left for improvised dialogue and action.

Lee Gallup Feldman proposed in *A Critical Analysis of Improvisational Theatre in the United States from 1955-1968*, that while "Scenarios and scenes are created primarily through action [..] it is not necessarily the action which

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[83] Playback Theatre uses set theatre games, called "show forms", which can be used at various stages throughout the show. Some of these leave interpretation up to the improvisors, with little guidance by the story teller. But the less input they are given, the more restricted the forms, so that they are more artistic pieces than improvised scenes. Most long show forms are guided by a lot of detail from the storyteller.

Theatre, acting and empathy

From the mid–1950s onward, it was not unusual to find theatrical improvisation being used on stage in front of an audience, where a director no longer had the final say in what that performance must be. While a director can craft and polish an improvised work in rehearsal, they can't do that while the actor is improvising in front of an audience. Improvisors can play out a scene using spontaneity and scene progression, but this alone doesn't make improvisation watchable. It requires the actor to have specific skills for the theatre, in addition to those in spontaneity and scene progression. So which aspects or skills of theatrical improvisation are specifically related to entertaining an audience, and how does that work in practice?

Emotion

Emotions are the body's reaction to something which significantly affects it. They're psychological in the sense that they affect the way we think, and they're physical in the sense that we're preparing physically for an action in response to a particular emotion. Some say that emotion doesn't have to be conscious, that we can be angry for example without being consciously aware that we are. Feelings on the other hand, are our conscious and subjective recognition of emotions. Feelings are us sensing emotion, and thinking through the origins and consequences of the emotion.

Depending on which theory you prefer, there are between four and eight basic emotions, generally considered as variations on anger, disgust, fear, sadness, happiness, surprise and contempt, which are then combined to create other more complex emotions. Each of these corresponds with a number of specific facial expressions, body postures and types of breathing, which are trigged as the physical response to the emotion. It is these combinations of physical attributes that our brain uses to determine what emotional state another person is in, sometimes without that person even feeling that they have that emotion. This is why we often know more about someone else's emotional state than they do, and why conveying this to them can be a correspondingly emotional experience for the conveyer. For example, if a friend is anxious and we can see this from their physicality and actions, and they don't realise that they are, then we'll likely empathise with their emotion, and then delay telling them about it due to the increased anxiety or anger that it may cause for us as well.

This is why scene initiations in improvisation which convey an emotional state on a scene partner, give so much useful information to each player, because emotional empathy invokes emotions in our scene partner without them having to do anything. For example, a simple and vague line such as "It's OK, we'll push through it", is a strong emotional gift to a scene partner which immediately invokes emotional, physical and verbal responses, all of which convey intention and meaning for the audience. The whys and wherefores of the scene will follow as, and when, they need to.

In 1992, Psychologist Paul Ekman reported that mimicking the facial expressions of certain emotions, would cause the body to respond physically and adopt many of the other physical attributes related to that emotion[117], along with some of the subjective feelings of that emotion. This is because these muscular changes — called microexpressions — are wired into the central nervous system, and thus the emotion processing in the brain. Other studies have shown that vocalising sounds which involve the same muscle movements as emotion, also tend to cause the participants to feel those

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[117] The participants were directed in how to perform the expression, so that the mirror system was not involved.

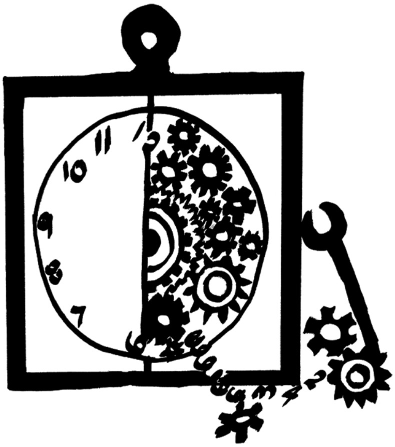
diamond necklace which they'd been dipping into their soup for the last minute or so. Discovering this made that audience think back over the last few minutes and rewrite their memories to make the scene fit with the dipping necklace. They experienced a collision of mentals models which was quickly resolved, and comedy ensued. "Do you like your soup with or without diamonds?"

The physicality and language used in scenes have this effect. What was a touching of the hair, could be a new hairdo or bad hair wax, an itching of the nose could be the beginnings of a fatal disease, or the openness of the guy serving you at the shop could be because he's your father.

Discovery naturally leads to the unexpected, a collision of contexts, because we keep discovering things that we didn't realise were there. As a scene progresses, there is missing information that the audience and other improvisors fill in without that information having been specifically added. For example, if the location of a scene hasn't been stated or physically shown, other aspects of the scene may give the impression that the scene is in a certain location. Then as new information comes into the scene, everyone — on stage and off — updates their understanding of the scene, often with the improvisors having to declare a location if they feel the scene and audience at that point needs to explicitly know.

For example, the dinner table scene above may end up being set on top of a mountain, and is only declared when the lady with the necklace says she's cold, like really cold. This might be interpreted as meaning they're outside in the cold and her scene partner declares that they are on top of a mountain, when she was really thinking that she was skimpily dressed. Collision of contexts is a natural by–product of this. In the case of a location, if we see a scene between two chefs, we may think by their physical actions that they are in a restaurant kitchen, but it may come out later that they are actually at a woodworking class, which due to the collision of contexts or realities, is funny, especially if everything they do to build a table is still chef like.

In the Chicago method, discovery happens a lot as a result of specificity — the drilling into detail which makes new discoveries. In the *TJ and Dave* film *Trust Us This Is All Made Up*, a bowl of individually wrapped sweets is discovered on the desk of a secretary, which leads to several physical games unwrapping and eating the sweets. The sweets have the very texture you'd



How scenes work

We now have all the theory in place for how to improvise, and have looked at the progress of that theory throughout the 20th century. We know what to do when we improvise, but how does an improvised scene actually work? We're not talking about techniques like game of the scene or platforms and tilts, we're talking about how an improvised scene works, regardless of the method.

We discussed some of what a scene is when we looked at scene progression — the attributes of a scene and which methods focus on which attributes. But what about the structure of a scene or its component parts? Whether it be short–form or long–form, or Johnstone or Chicago, breaking a scene down into component parts gives more detail about how scenes work and helps identify areas for improvement. But how can we do that in a generic way when the various methods and their variations are so different?

Most books on improvisation will tell us how the author thinks we should start a scene, but this will vary from author to author. Is it best to start a scene with a hard initiation, a strong offer to drive the scene forward, or is it better to soft initiate and just see what happens? Should we start with nothing, discovering everything from within the scene, or start with a premise, an already formed idea? Should we start with CROW — Character, Relationship, Objective and Where — a status choice, or with a quick build

once the platform has tilted anything can and will happen, often with the absurdity curve coming into play. With UCB, the whole point is to look for the first unusual thing, and due to the inward looking nature of the Chicago method, the game is a singular idea that is drilled into, heightened and played as hard as possible until the end of the scene, give or take the odd break if the game is rested. In Johnstone however, a continuing story with advancing actions simply shows the impact of the tilt over the course of the scene, and is not a focus on or amplification of the tilt itself.

While it is possible to play game of the scene with Johnstone's impro, it can cause scenes to stall if the scene focuses on a verbal or even non-verbal game which can't actively advance. And playing a game throughout a heavily advancing long–form scene can sometimes seem more like a distraction from the unfolding story.

Units of action can be seen quite clearly in styles of improvisation which focus on game moves and game of the scene. Players identify a game either of the scene or within the scene, and then more often than not play the character's objective to satisfy the game. *iO* and *The Family*[140] alumnus Miles Stroth's position play technique is similar. In position play, Stroth identifies 4 basic scene types, and says that once you recognise the type of scene, it is easy to then play out the objectives of those characters in that type of scene. In the "straight/absurd" scene type — one character is the absurd person that has an unusual belief or trait that is heightened, while the other is the straight normal person that reacts to the straight person's musings — and "character driven" scene types, these can often be played as games of the scene.

Resting the game is also like a change in the unit of action, which is a change in sub-objective, and which is a new beat within the scene. In scripted plays, the actors and the director work through the script identifying these elements, so they may be perfected in rehearsal. But in improvisation we're doing it on the fly.

Game of the scene isn't the all-encompassing technique it is often claimed to be. It is a technical method for generating funny scenes very quickly, but like Napier's rules argument, does not include all the funny scenes which potentially exist. And similar to switching between Johnstone and Chicago, switching between the often fast and frantic UCB game style and other non–game Chicago methods can be difficult, because we're unlearning the "base reality" and "game finding and playing" that's already been internalised as improvisation. Not to mention in order to play a game of the scene, all the improvisors in the scene need to know that this is what is happening, otherwise the game most likely won't be found and heightened.

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[140] *The Family* was a well known house team at iO Chicago in the early to mid-1990s, which trained and experimented under the direction of Del Close.

Whether game of the scene is significant or not, recognising it and playing it is still a very useful technique to learn.

General topics

Being in the arts, improvisors tend to not ask questions of science, but instead follow tradition and the advice of experienced improvisors — who are often just following tradition themselves. Traditions, while often helpful, aren't always guaranteed to be the best approach, as we well know from many of the great traditions such as hazing and wearing ties. And when it comes to experienced improvisors or improvisation schools, often they're just continuing many of the same old improvisation traditions.

There are some great questions we could be asking of improvisation that would help us better understand the craft and make us better improvisors. For example: can anyone improvise; in what ways do different audiences affect an improvisor; what is the real effect of drugs and alcohol on improvisation and does having a drink before a show have any negative effect; and does the freedom to fail really make that much sense?

This chapter is a collection of general improvisation topics, and an attempt to answer or explore them from a scientific perspective, now that we understand how improvisation works.

Short–form and long–form?

At first look it would seem that the definitions of short–form and long–form are pretty obvious: short scenes vs. long scenes. Mick Napier in his book

Improvise: Scene from the Inside Out uses this rough definition when he argues we don't need these terms because scene length shouldn't matter. This all sounds pretty obvious when you think about it, so why do we need such terms at all?

The problem with this argument is that Napier is using a certain definition of short–form and long–form that's not universally agreed, and this leads to his decision that we don't need these terms.[141] Like many things in improvisation, the real answer is more complex.

If we assume that short–form and long–form are really about short scenes and long scenes, then we have a dilemma — we have no definitions for short and long, aside from not long and not short. So, what is the number of minutes that makes a short scene become a long scene?

In Johnstone's classic short–form *Theatresports* show format, a scene can be roughly the same length as a scene in a *Harold*, the classic long–form format. In fact, some *Harold* scenes, particularly in the UCB style, can be much shorter than an average length scene in *Theatresports*. So the definition of short–form and long–form can't be the length of the scene, or even the show.

Another definition of short–form and long–form states that short–form has breaks between scenes where no improvisation takes place, and long–form is a continuing series of scenes without a break. But there are shows that have breaks between scenes, and are still considered long–form. For example, show forms with a monologist who tells real life stories based on suggestions from the audience, that is then followed by several inspired scenes before returning again to the monologist. The most well-known of these is *The Armando Diaz Theatrical Experience and Hootenanny*, a long running show at *iO Chicago*, that gives its name to shows of this format. UCB's popular show *Asssscat* also uses what we now call the *Armando* form.

Yet another definition states that short–form is theatre games with rules, whereas long–form is scenes without rules. Once again *Theatresports* contradicts this idea, because *Theatresports* as Johnstone intended it, doesn't use that many theatre games — they were only intended to break up the mainly open scenes of a show. On the other hand, some long–form shows do start with a game such as freeze tag or some other training exercise to warm up the audience.

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[141] Napier continues using the terms short–form and long–form in his second book *Behind the scenes. improvising long form* 10 years later, so perhaps he's now changed his mind?

And finally, there's the issue of LPMs, the argument that short–form has a high number of LPMs, and long–form is allowed a lower number of LPMs. This is often an audience expectation as well. Audiences expect high LPMs in a show billed as short–form, and they're more accepting of a slow build and low LPMs in a show billed as long–form. Obviously this isn't a particularly good definition, because I've seen many shows billed as short–form contain virtually no laughs at all, and shows billed as long–form with very high LPMs. Although this is usually more to do with the skill of the performers than anything else.

By the above definitions, an *Armando* or *Harold* could arguably be called short–form, and Johnstone's *Gorilla Theatre* or *Life Game* could be called long–form. So in this sense, Napier is right that the terms aren't useful at all.

According to Michael Gellman, the terms short–form and long–form came about almost by accident. In Chicago in the 1970s, at Del Close's insistence, Gellman began figuring out how to improvise a full-length play[142], and then started teaching what he'd discovered alongside Close's regular *Harold* classes. To distinguish the two streams, Gellman's class was titled "Long–form", and when the classes ended two years later, Close decided to appropriate the term for his own classes, presumably to distinguish them from the short scenes and sketches performed at *Second City*.

Assuming Gellman's story is correct, then the terms were chosen almost by accident, with no actual definition of what they really mean. This explains why arguments continue, because there's no exact definition that will categorise everything as either long–form or short–form.

At some point, someone in the Chicago community invented the term short–form to cover anything that wasn't related to Close's work, and it stuck. Likewise, the Johnstone community looked at some of the more scenic shows in the Chicago method, and then adopted the term long–form to mean "not one of the theatre game show formats". Thus, the terms short–form and long–form are actually defined differently between the two methods. And even within each method, you can find different definitions.

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[142] Mary Scruggs and Michael Gellman wrote a book titled *Process – An Improviser's Journey* in 2008, describing Gellman's techniques for improvising a play. Interestingly, the book was written as a first person fictional diary of a student improvisor, similar to Konstanstin Stanislavsky's diary of an acting student in *An Actor's Work* — in English known as the abridged *An Actor Prepares.*

If you're a Johnstone method improvisor, then you will most likely think that short–form is games with breaks in between or theatre games, and long–form is where scenes connect together in a longer story without a break. Not that these are two clearly distinct definitions, because there are scenes and shows that could by this definition be both. Johnstone's *Life Game* format is a good example of this, because it could be short–form or long–form by most definitions.

However, if your background is the Chicago method, then you'll most likely think that all Chicago method improvisation is long–form, except theatre games formats such as *ComedySportz* and *Theatresports* which are short–form. Some Johnstone improvisors have even suggested that *Harold* is a short–form format, because it contains short scenes usually not connected by an obvious narrative.

And then there's *Playback Theatre*, that uses the terms short–form and long–form completely differently. *Playback Theatre* gradually increases audience participation over the course of a show. The audience is asked for simple ideas or concepts at the top of the show, and then once they gain confidence, audience members are asked to come on stage and tell more detailed true personal stories. The terms short–form and long–form are used to categorise the types of scenes used throughout the show, and not used to describe the show itself. Short–form scenes highlight an emotion, an idea or other concepts from a story, and are played in the beginning third of the show as the audience is being warmed up. These could be anything such as a simple tableau, a sound sculpture or short fragments of dialogue. Long–form scenes on the other hand generally replay a story or part of a story told by an audience member.

Basically, your exact definition of short–form and long–form will vary depending on your model of improvisation, and even then, there will be shows and scenes which fall into both of your definitions.

What this means is that the long running arguments about which is better, short–form or long–form, can never be resolved, because each method has its own slightly different definition. And even within those methods the definitions can be different and not exactly exclusive of each other. It is like asking which is better, *dogs* or *excitedly*.

The term short–form must still be useful however, because we still use it to fairly accurately explain what a show might be like, regardless of which method of improvisation we use. So there must be something about the terms that makes sense to us.

As a general rule, perhaps the difference is mostly about audience expectation, whether there will be high LPM theatre games and possibly Johnstone's story compression and the absurdity curve, or whether there will be comparatively lower LPMs with thematic or scenic exploration. Classifying them as such usually gives us and possibly audience members a much better idea of what a show might be like. For this reason, it is useful to keep using these terms, even though there really is no precise definition.

Freedom to fail

The word *failure* is fairly specific in its negativity — it means the opposite of success, with success being something we should be striving for. Other definitions are similarly negative and include being unsuccessful, and being in a not functioning state. In fact you'd have a difficult time finding a positive definition of the word failure, and yet we teach failure as a good thing to beginning improvisors who are often scared of failing before their first class has even started.

Instead of teaching that we always succeed at improvisation, we've redefined the meaning of failure. No improvisor I've met has ever said "I'm here to fail at improv". And lying to new improvisors during their first few levels — that failure is good thing — is going to hold them back from achieving greater things. Especially when after a few levels, they realise that failure isn't what they were told it was. We want new improvisors to succeed, so why do we tell them not to?

We've taken the embracing of failure too far, too literally, and often out of context.

The freedom to fail has moved into the mainstream. Life coaches — an odd concept to begin with — encourage us to have and push through failures and to become better and more experienced people because of them. Business also now embraces the freedom to fail, recognising that risk and failure can help innovate as well as train staff in creative problem solving. In fact the first 10 Google search results for "freedom to fail" as at the time of writing, are all business related.

But businesses usually have clearly defined criteria for success and failure, as well as having an aversion to any failure linked with profit. So they've started adapting the phrase to be more conservative and risk averse, such as *freedom to fail in small ways*. And then there's the even more amusing and contradictory *freedom to fail forward*, which has also now found its way into life coaching.

The word failure only makes sense if there is a goal that can be achieved, and by implication, that there is success and failure at achieving that goal. In improvisation, the freedom to fail gives the impression that there is an end goal, and then confuses the issue by saying that failing to achieve this goal is OK. Saying that there is success and failure — a right way and a wrong way — and then saying that both are OK, is confusing for newer improvisors, and instils the idea that there is success and failure, good and bad, positive and negative, but doesn't explain the difference. It also personalises the failure, making the improvisor feel that they are failing, when there are countless other external influences which may have contributed to the perceived failure.

In *Impro for Storytellers*, Keith Johnstone uses the term failure to mean actual failure in the negative sense and that it is something to be avoided[143], just like it is outside of the improvisation community. As does Viola Spolin in *Improvisation for the Theater*, and so do Close, Halpern and Johnson in *Truth in Comedy*. It is true that you can't learn everything without failing, but that doesn't make failure an integral part of learning how to improvise.

But Johnstone goes further, saying that players should not even be thinking in terms of success and failure. This is because the process of improvisation is imperfect and random. There's no goal in the process of improvisation. As soon as you're improvising, at whatever level of skill, you can't say you're failing at improvising. You are improvising at the level of ability that you've been trained. Improvisation begins with the enacting of an internalised trained skill, which is then affected by so many things outside of the improvisor, that failure can really only be defined as not actually enacting the process of improvisation.

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[143] Although he also talks about players being able to fail gracefully and to not be negatively effected by it.

The tech start up world provides us with a good example. They use short iterations of innovation and review, using what's called a "spike", to develop incomplete or unknown technology ideas ahead of time. This allows them to test which ones may or may not work, or may not be achievable in the allocated time or budget. They are then able to "pivot" their business from one focus to a completely different focus if things don't work out as planned. If you took each test step, out of context, you could see what would traditionally be called failure. But in the big scheme of things, it is all just part and parcel of the process of building a product.

The same thing happens when businesses use failure to teach creative problem solving. They set up situations where failure occurs, so that their people can recognise it and develop tools for specifically dealing with it. No business lets their people fail at random tasks that are associated with the actual running of the business. Imagine if I failed at letting my manager know about a client who was potentially about to leave the business. I certainly wouldn't be applauded for using failure to learn what I should have done in the first place.

The main argument for embracing failure in improvisation, is that by failing we both recognise our limits and explore outside the bounds of our current thinking and knowledge. We learn by failing. This is a worthy goal, but it's not failure. In improvisation we learn by extending ourselves beyond what we think is possible or we are capable of. We often find ourselves in situations we've not been in before, and often we make choices that we think are great but the audience does not. This is not failure. This is learning. This is refactoring our internalised improvisation model, to consider our new insight.

Parachutists don't use failure, to learn. Neither do rocket scientists, surgeons, stunt people, most students, or even actors — rehearsal isn't about success and failure. Ask a rocket scientist if they're glad their rocket blew up so they could learn a thing or two, and they'll most likely grimace and walk away. Governments don't intentionally use failure to learn and improve, or they'd get voted out. And artists don't fail at art — although they may fail at making art a sustainable business, which at least has boundaries and fixed goals which they can measure against.

people, lying somewhere on the continuum, he called this ambiversion. So ambiversion was originally defined as whatever a normal balance might be. Only more recently has it been redefined in the popular press as being in the middle, with equal amounts of each.

So what does this mean for improvisation? Well, for most people, it means nothing. Most people have both introvert and extravert attributes, but may seem one or the other under certain conditions. And when people who are more introverted learn to improvise, more often than not they find extraversion as well.

What's more interesting, is that studies have found that extraverts — still considered normal and somewhere on our continuum — are more often happier than introverts. One reason cited for this is that social interaction has been proven to have a positive affect on people, and therefore it makes sense that extraverts would have more of this effect. However other studies have shown that this doesn't account for all the difference.

In 2012, Zelenski, Santoro and Whelan published a paper titled *Would Introverts Be Better Off if They Acted More Like Extraverts? Exploring Emotional and Cognitive Consequences of Counterdispositional Behavior*, to which their answer was yes. They found that introverts acting like extraverts increased their positivity and therefore their happiness. Whereas the opposite was not the case, and extraverts acting like introverts did not change their positivity — however they did suffer a decrease in cognitive ability. This could contribute to why improvisors are often more positive and happier than the general population, however there are many positive aspects of theatrical improvisation which also contribute, so it's not clear by how much.

Alcohol, drugs and stimulants

Improvisation and drugs traditionally go hand in hand, more particularly so with alcohol. Although marijuana, heroin and cocaine have been associated with improvisation at one time or another. And while we're at it, how about more available stimulants such as caffeine, nicotine and energy drinks? As far as I know, nobody has done any hard research or even theorised on whether drugs help or hinder improvisation. Let's have a look at how a number of different drugs affect the way we improvise.

The argument for drugs begins with alcohol. It is argued that having an alcoholic drink before performing, removes the filters and allows us to be

These aren't hard and fast associations, because it also depends on the shade of colour, the other colours around it, and the subject of the colouration — whether it's a dress colour for a particular person, or the colour of their car for example. And there are contrary associations with the base colours as well, as blue can also be associated with clinical, stark, coldness or night.

Theatre uses connotative colours all the time, in the use of lighting, sets and costumes — it's an integral part of the production design process. In improvised comedy shows we don't have the luxury of knowing what's going to happen, so often an improvising lighting operator will use variously coloured lights to indicate many of these associations as they occur on stage. But this also depends on the experience and knowledge of the operator, and whether they come from a theatre background or are simply an improvisor flicking a white light on and off to bookend scenes.

The power pose

In 2010 a scientific paper appeared titled *Power Posing: Brief Nonverbal Displays Affect Neuroendocrine Levels and Risk Tolerance*. The authors discovered that a person holding two different "power poses" of one minute each, would amongst other things "embody power and instantly become more powerful", and that they would take higher financial risks. One of the authors, Amy Cuddy, then appeared at a 2012 TEDGlobal Talk where she explained power posing and the paper's findings — the video of which is apparently one of the most watched TED Talks ever.

However, a number of later papers have since disproved many of the effects of power posing, having discovered flaws in the methods used in the original paper, and having been unable to reproduce those results. Dana Carney, another author of the original paper, now also discredits the original findings and says "I do not believe that 'power pose' effects are real." This would seem to be the end of it — time to stop power posing in improvisation. But is it?

When Amy Cuddy's TED Talk video appeared, the power pose technique was quickly adopted by many disciplines, including theatrical and applied improvisation[155]. Cuddy then published a book in 2015 titled *Presence:*

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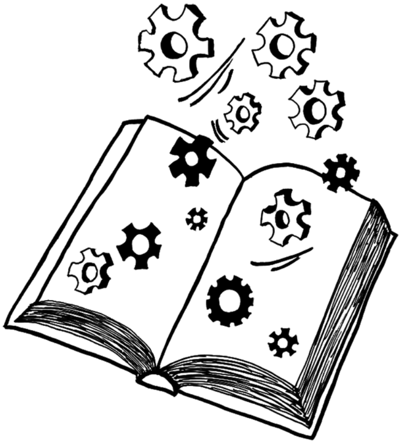
[155] When the original power pose paper appeared, I integrated power poses into my workshops — with a few new exercises based on the technique — and I've seen other teachers and students use their own version of it in workshops and warm ups. I've also used it in the corporate environment, but it needs to be integrated in a way that doesn't seem like it's a trick.



Extended Table of Contents

Many of the books on my bookshelves are covered in those little plastic sticky flags used for marking certain pages. Every so often I need a particular quote, reference or exercise, and finding these in books which usually have generic chapter titles is really difficult. Why don't they have an extended table of contents? Here's mine.

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