

THE PERCEPTION OF RISK AND COMMON CAUSES OF ACCIDENTS: A PERMANENT CHALLENGE TO THE EDUCATION OF BRAZILIAN ARTISTS.¹

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Introduction

There is no doubt that circus is intrinsically a risky activity, exposing professionals/amateur workers and enthusiastic practitioners to two different kinds of risk: poetical-aesthetical and physical (health and/or life integrity). Risk still represents a crucial element of contemporary circus' aesthetics (Wallon, 2009; Goudard, 2010).

However, the social perception of risk, concerning the circus performances, has changed drastically over the last decades, developing a new moral, ethical and legal framework. The need to control and manage the risk became a priority to the circus' industry, aiming to preserve the physical integrity of all those involved, avoiding lawsuits and other negative impacts on its image and finances.

Regarding the study of risk, we agree that the relationship between circuses and risk are deliberately established (Le Breton, 1995). According to Douglas (1994), the risk perception combines a subjective personal and social construction, the way it is perceived and treated can change substantially according to lifetime experience, type of circus activity, level of expertise, among other factors (Ferreira, Bortoleto & Silva, 2015).

Understanding the risk perception and the possibility to access objective data (risk characterization, accident typology, injuries rate, etc.), can surely contribute for a better management of risks and, consequently, a safer practice. In other words, personal judging in addition to the technical

¹ Original published in French: BORTOLETO, MAC. Capítulo 3.2. Perception du risque et causes d'accidents, un challenge permanent dans l'éducation des artistes brésiliens. IN: GOUDARD, Philippe Goudard; BARRAULT, Denys (org.). *Médecine et Cirque*. 2020.

assessments can better express risk, and together they can build a "culture of safety" (Brown, 2014).

The challenge to maintain the aesthetic of risk and preserve the physical integrity of circus' people represents a complex and urgent phenomenon that needs to be deeply approached. To decrease or even eradicate the unnecessary risks and control the "necessary" risks, have been a usual issue for circus artists, teachers, artistic directors and scientists. It seems to be a major problem the absence of a specific regulation for circus in Brazil, even though circus represents a wide geographic and social art form since the middle of the nineteenth century (Silva, 2015)². It should be noted that over the last four decades, circus arts have increased significantly in the Brazilian society, expanding exponentially the numbers of artists, professionals and recreational practitioners.

Based on the previous arguments, the purpose of this chapter is to discuss the risk perception of Brazilian circus' professionals, contrasting the recent data on circus accidents, and trying to build a better understanding on how the contemporary circus training has been dealing with this issue.

The risk perception – transgenerational conservatism

The mass media impact on circus performance accidents continues to be a negative aspect to the circus industry in Brazil. Two cases recently reported by Vivela (2017) and Mota (2018), can be good examples of it, both accidents in Russian swing and Trapeze, happened during performances (in front of the audience) and unfortunately have ended up with the artists' death. The first case involved an artist graduated by the National Circus School (Rio de Janeiro-Brazil) and, the second an artist who came from a traditional circus family. We all know that these types of events are not new, they affect the risk perception of the circus community directly and contribute to the social understanding of circus as a high-risk activity due to the major attention often

² Although circus is a secular phenomenon in Brazil it has been recognized as a professional activity by the Brazilian Occupational Classification (BOC) – Ministry of Labour (MTE) in the 1990's under the codes: Circus artist (Circuses) n. 3762; Circus director n. 2622-20; Performance Arts teacher in high level education: Circus art undergrad teacher n. 2649-05 (MTE, 2010).

given to circus tragedies (Ferreira, Bortoleto & Silva, 2015). Do we have strong evidences proving this condition?

Of course, we are not denying that many of the circus activities are risky, but it doesn't mean that circus is a high-risk practice or riskier than others human activities (industry work, sports, army, among others). A similar discussion had Collard (2002) about the social risk perception in sports, where it was possible to notice the existence of some misunderstandings. The fact is that there is a general perception, which sometimes surrounds the common sense that circus is too dangerous. So, what do the Brazilian circus people think of it?

From 2009 to 2014 we participate in an educational program financed by the National Arts Foundation (FUNARTE) and the Ministry of Culture (MINC), both organizations responsible for the circus development in Brazil. This allowed us to study the risk perception and to map accidents and their agents of causes in the Brazilian territory³. We had the opportunity to visit all kinds of circus in Brazil, in all sizes and formats, and to be in contact with more than 150 circus professionals (riggers, owners, managers and artists) with different experiences in circus performances, including the big cities, small villages in the countryside, indoor and outdoor shows/performance, etc. We were, therefore, able to find a representative sample of the diversity of Brazilian circus⁴. The results pointed out important information regarding the risk perception, as follow:

- Circuses are resistant to assume accidents may happen and to discuss how these events should be faced. Many of them, mainly the most experienced ones, tend to omit facts, taking more time to admit accidents occurrence, or even trying to naturalize them.
- The accidents repercussion is often negative, so the discourse is built in order to minimize these events;
- Although the serious accidents with lethal or chronic consequences do not occur so often, it happens in all geographic regions, involving all kinds of circus performances (big top circus, street performers, theater/indoor shows, festivals, recreational activities).

³ Project develop in partnership with Mrs. Vanda Jaques (Cia Intrépida Trupe - RJ).

⁴ This study was afterwards deepened by a master degree study developed during a two years period, by Diego Leandro Ferreira. These studies have been combined and later on published on a book format (Ferreira, Bortoleto & Silva, 2015).

- Very few information about the accidents and its consequences to circus professionals, companies and families, are available. It seems that right after the accidents, circus people just “disappear” and “life goes on” as nothing had happened;
 - The everyday accidents and injuries with non-serious consequences as muscle discomfort, twists or other minor injuries, impediments of working for a short period, e.g. are the most frequent but the least reported. In general, they go unnoticed. Consequently, these accidents usually get lesser attention, and in many cases are treated inadequately leading to chronic diseases which can interrupt the professional career. Many people don't even recognize these facts as risk of circus activities.
 - It has been identified a great variety of causes of accidents in the circus activities, since the “indirect” ones (electrical chocks during installation or maintenance, accident during displacement from one place to another, ...) and more frequently the “direct” accidents related to assembly/disassembly/rigger work, and also in training and performance. The equipment failure and the use of inadequate material have been pointed as recurrent causes of accidents, however, human failures as lack of maintenance, technician lack of knowledge and inadequate practices have also been mentioned, although with less importance. It seems that people are trying to minimize the human failures and the lack of efficient protocol/system for risk management. These findings contradict recent researches affirming that human being decisions represent the main cause of accidents, even when they were brought on by a sequence of errors, imprecise decisions and material failures.
 - Accidents make part of the reality in all kind of circus (traditional-family, professional and amateurs' companies, small or big, fixed or movable, big top or not, small troupes, family circus, circus schools, social circus projects, etc). All kinds of circus professionals can be involved in accidents, since the beginners to the very experienced ones. Even though we have already mentioned a great resistance in assuring it, the great majority of the interviewed circuses has assumed to know or have been involved in accidents. They also recognized a huge variety of risks according to the circus activities. The more experienced they are, the safer they feel, usually supported by the argument that “they know what they are doing”. In this case, the “experience” creates a confidence, making it harder to observe the details that allow risks' prevention, and so to act preventively. The experienced circuses are frequently exposed to risky situations, raising accidents probabilities by negligence.
 - The informality of circus professional activity⁵ and consequently the nonexistence of an official record is also true. The absence of an official work contract or the regularity of accidents registration in government bodies (Minister of Labour, National Institute
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of Social Security, e.g.) makes it more difficult to change the labor regulations⁶. This condition makes more difficult to get an effective support either from the government or circus associations. It looks like the long period of professional informality, has made the Brazilian circuses accept this condition as something not needed to be modified. Differently to what is observed in many others professions (chemistry, drivers, health system), the informality was not mentioned as a negative aspect or even as a problem in order to develop a better system for risk control. The workers' rights in case of accidents represents an obscure aspect to be better enlightened. This situation impacts on the absence of an epidemiological data (accidents, injuries, absences, e.g.) making it harder to advance.

- While the majority of circuses recognizes that a systematic process of safety control, individual or collective, may help the risk management, only a few of them have admitted the use of safety protocols. In fact, even though they notice high risks situation in their "colleague's" performances or in their working place, they often don't share comments in order to avoid problems.
- The difficult to access equipment technologies (ropes, carabiners, mattresses, harnesses, trapezes, trampoline, etc.), has been pointed out as a great problem, affecting mostly the North and Northeast regions of Brazil, mainly in the distant places and in the lowest economical regions. In Brazil, no certified supplier of circus equipment was mentioned, and most of the circus apparatus are still handcrafted. The certified equipment used to hang, for example are mostly imported, which increases the cost of safety systems.

In general, we have observed a conservative attitude of Brazilian circuses, regardless their age, experience as professionals and training they have had (circus schools, circus families or self-education). This cultural behavior is frequently associated as a typical characteristic of family circus people. However, we have noticed that this is a wrong perception, once it also integrates all "contemporary" circuses (a mistake already discussed by Silva, 2014). According to Foster (1973), this is about a strategy to keep "traditions" and to develop social cohesion, a characteristic present among Brazilian circus, even though the circus professional training has changed considerably in the last four decades.

⁶ According to the official data of the Ministry of Labour and Employment (MTE, 2018), in its Statistical Yearbook of Work Accidents (AEAT), in 2017 approximately 550,000 work accidents were registered in Brazil, with 2,096 deaths. According to the document, only when accidents are officially reported it is possible to establish a coordinated action between the Unified Health System (SUS), Ministry of Labour, Ministry of Health and Ministry of Social Security.

Roughly, the circuses indicate a “low risk” perception of the circus activities, usually “controlled” by their own experience. The speech disguising the problem is “this only happen to others”. However, considering the accidents described, we noticed a contradiction that denies this reality and build a psychological and social protection behavior. In accordance to Douglas and Wildavsky (1982), this might be a tacit behavior trying to preserve the circus culture and their professional status.

The individual and social dispositive of protectionism could explain the barrier found to discuss accidents and its causes. It seems that some cultural trait of oral transmission, generation by generation, keeps on working to all kinds of circus professionals, including those who did not come from a family circus. The close collaboration of the family circus people to the training of new circus generations in Brazil, may explain this (Duprat, 2014; Matheus, 2016), something that we believe deserves specific researches in the future.

Accidents in the Brazilian Circus: what says the new generation?

Our most recent project was developed from 2010 to 2018, Brazilian circus professionals were asked about accidents and its causes, the strategies to manage risks and what protocols were used for a safety training (table 1). For that, a semi-structured questionnaire was developed and applied to 130 experts (64 male and 66 female), from 17 to 51 years old, from 25 different cities of the five Brazilian regions, including the National Circus School students (2016-17 course).

Table 1. Circus activities performed

Activity	Frequency *	%
Artist	76	58,46
Rigger / Assembler	13	10
Stage and backstage worker	8	6,15
Teacher / Instructor	47	36,15
Art-educator / Social circus instructor	32	24,61
Circus student / practitioner	84	64,61

* The participants could choose more than one option.

Concerning the circus experience of the participants, 15,38% (20) declared less than a year; 40% (52) from 1 to 5 years; 21,53% (28) from 5 to 10 years; and another 21,53% (28) more than 10 years. The majority of this population trained in circus schools.

The majority of participants (98%) recognized the risk as a fundamental aspect of the contemporary circus development, and more than 60% declared not to feel prepared to control risks and so feeling unsafe. Almost 93% highlighted not to have received a systematic education on safety, assuming the empirical experience and the observation of most experienced colleagues as the main strategies to improve on this issue. The training offered by circus schools seems not to have contributed significantly to modify the knowledge on safety.

Analyzing the data collected by the qualitative questions, we were able to notice that circuses trust the most experienced professionals on their daily safety procedures and training. The experience (time involved in circus) shows up again as the “key” aspect for the risk perception. The “oral-transmission”, a characteristic of the Brazilian Circus traditional training, still represents the most efficient mean for professional education concerning this matter (Silva, 2015).

The participants reported more accidents compared to the previous investigation; maybe because of the use of an indirect tool (questionnaire) that preserved the respondent’s identity. However, the accidents’ causes have been always the same; more attention to the equipment failure was given than the human being faults. Very seldom, a responsible person was blamed for the accident, even though when it was evident.

Regarding the situations that accidents happened, participants reported:

Table 2 – Accidents situations

When - where do accidents occur?	Frequency *	%
Rigging / Assembly and disassembly	61	46,92
Training / Rehearsal	119	91,53
Operation of engines and machines	20	15,38
Handling of chemicals products / fuel	25	19,23
Food production or sale (popcorn, ...)	5	3,84

Manufacture of equipment	16	12,30
Show / Performance	60	46,15

* Participants could indicate more than one option.

Daily training, rehearsal sessions and show set up, were common situation when accidents mostly happened. Unfortunately, the biggest lack of information was precisely over these situations. Media news and official reports are focused in live show accidents instead.

Questioning on their reaction to accidents, they all answered that, when it is severe, it is necessary to call the public medical assistance (emergency) and the activity (training, show, assemble...) should be interrupted. On the other side, for non-serious accidents, the answer was radically different, as the need to search for a professional assistance/treatment, as we can see below:

Table 3 – Answers given for low risk accidents - injuries.

Categories	Frequency	%
First aid and referral to a professional healthcare	40	30,8
Self-service and unspecified assistance	36	27,7
Treatment with physiotherapist, osteopath or physiatrist	32	24,6
Ignore the problem (accident / injury)	6	4,6
No treatment or inadequate treatment	3	2,3
Not responded	8	6,1

In general accidents, severe or not, represent a major challenge to the circuses who work far from the big cities once the access to medical help (hospital, physicians, physiotherapists, ...) is more difficult or sometimes impossible.

The lack of financial resources and the informality of circus activities have become a strong “social barrier” which considerably reduces the access to adequate health assistance. Nonetheless, the help provided by other circuses (by the circus community) as a solidary action, has been indicated to be the most common way to deal with problems arising from accidents. In other words, a “collective cohesion” and the sense of belonging, seems to be fundamental for the maintenance of circus activities in Brazil, similar to what was observed during a hundred of years in the traditional family circus (Silva,

2015). A more conservative rather than innovative behavior was observed, although the great majority has indicated to have better access to information mostly provided by the internet (websites, social media).

Finally, we understand that a safer circus activity means a longer professional carrier. Moreover, we believe that good practices about risk management will affect directly the quality of the Brazilian circus (Ferreira, Bortoleto, Silva, 2015) and also can help to modify the social perception of circus as a high-risk art. In this sense, we agree with Collard (2002), the better knowledge of the specific risks on circus activity as well as a adequate training can change the risk perception among circuses.

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