

THE LONG READ: POSITIVE JUST CULTURE FOR MODERN TIMES

Just Culture has changed from being a theoretical notion for improving safety to a legislative reality. But there remains much misunderstanding and concern about how the notions of gross negligence and wilful misconduct that are traditionally used in criminal and civil law should be interpreted. In this article, **Florentino-Gregorio Ruiz Yamuza**, Senior Judge in the Appeal Court of Huelva (Spain), discusses these issues, along with a number of possible implications for safety and justice.

In a seminar held in Seville in May 2018, one of the speakers delighted us with a fragment of the "I Love Lucy" series. In the episode, Lucy and her companion are wrapping chocolates on an assembly line. Their performance perfectly and hilariously illustrated, in the style of the great Charles Chaplin in his 'Modern Times', among other things, the overwhelming work pressure faced by two workers, and how they used workarounds to make it look like their work was achieved satisfactorily. The scenario emphasises not only dealing with unacceptable workload, but the challenge of presenting an ideal performance, in order to avoid being fired.

This brings us to Just Culture. In this brief review, I reflect on some of the changes facing the practical application of Just Culture. I will use the term 'positive' to describe the term Just Culture in two different senses: on the one hand, concerning the legal representation of it; and on the other, as a requirement for the correct application of the concept.

The positive context (the scenario)

From the legal point of view, at least in the field of western aviation, the idea of Just Culture has long ceased to be just an interesting theory on how to improve safety by facilitating the flow of

safety-related information. Just Culture has become a directly applicable law.

Sticking only to the European Union, we have a compact legislative system, which the Member States have adapted in national legislation. This presents an official definition of what we have to understand by Just Culture, and a series of clear objectives about how to put it into practice. These objectives can be summarised as follows:

- ensure the confidentiality of the reporting of incidents and problems
- guarantee the shielding of the reported information
- foster reporting, and
- increase safety.

The first three are related to the fourth, which gives meaning and coherence to the rest.

The legal debate has shifted from the need to introduce the concept of Just Culture in our legal environment to the need to delve into some related notions. These require developments in legal theory and practice, including to make compatible the different legal systems that affect aviation.

Regarding the legal framework, the system comprises several legal subsystems. Air traffic and safety do not escape the legislative complexity present in any area of society. Therefore, we can distinguish two groups:

- aviation safety, including the notification and investigation of accidents and incidents to improve aviation safety, and
- responsibility at the criminal and civil level.

Of these two, the first group belongs to the administrative sphere. Here, sanctions are also established for breaches of standards. The second group concerns responsibilities that are only resolved in court.

The differences and commonalities between these groups may contribute to uncertainty regarding Just Culture. Specifically, there may be uncertainty about the protection offered by the confidentiality of the report, which has two significant exceptions: on the one hand, the severe lack of diligence in the terms contemplated in Article 16.10 of Regulation (EU) 376/2014; and on the other the conduct of judicial proceedings.

Thanks to the umbrella of Just Culture, when reporting situations and incidents related to air traffic, front-line operators are protected from possible administrative sanctions and labour reprisals. But the protection does not extend to cases of gross negligence or wilful misconduct on their part, nor to any liability that may be established in judicial proceedings.

Doubts and complications arise from the fact that the concepts of wilful misconduct and gross negligence might not always be completely clear or easy

to determine or distinguish. Added to this, the diversity of legal and judicial systems, proceedings and procedural rules in the European Union may further confuse the matter.

In our meetings with pilots and air traffic control officers, the bulk of their concerns revolve around the nature and measurability of negligence. There is no legal ruling, for the application of the Regulations mentioned above, to clarify completely what should be understood as gross negligence and wilful misconduct.

The legal system of each country can define these concepts slightly differently. The concepts can be even more different for civil or criminal jurisdictions. But for a transnational content it is necessary to resort to other basic instrumental notions:

- action, which is the active behaviour or omission that a person carries out
- outcome, that has occurred because of the said action
- volition, or intellectual attitude that leads the person to represent the consequences of his or her activity as sure or likely and, knowing this possibility of occurrence, to take action.

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In Figure 1, I try to illustrate the conceptual position of both within the frame of reference of action, outcome and volition.

The outcome is not the essential consideration when it comes to negligence. This is because a higher degree of negligence does not necessarily produce a more serious outcome. The fundamental consideration in assessing the degree of negligence is the *probability* that the harmful event occurs and the acceptance of that probability.

Negligence differs from wilful misconduct. With wilful misconduct, the volition of the person covers both the action and the outcome. Negligence, on the other hand, implies that the action

is wanted, but the outcome may be more or less likely, depending on the severity of negligence. Therefore, gross negligence would be the situation in which an average person, adequately qualified for the position he or she fills, should rationally foresee that a harmful event may very likely occur as a result of his or her action. And despite being aware of such likelihood, he or she takes the action and accepts the risk of the consequence.

The ecosystem

With this frame of reference, we can now explore the ecosystem in which Just Culture is applied.

The operational framework of modern aviation is complex. There are multiple actors and many factors coexist in tension in the work context that influence human performance.

It is important to bear in mind that the majority of planes that cross our skies (aside from military missions, civilian or humanitarian tasks) are commercial flights and that the airlines, like any company, seek to maximise benefits. This implies reducing costs, including those that derive from the allocation of human resources to different tasks. Although aviation safety standards and outcomes are genuinely high, problems comparable

to that of other areas of enterprise or civil service do appear frequently. Understaffing, overtime, work overload and other problems – very similar to the ‘I Love Lucy’ chocolate factory – affect aviation employees, especially front-line operators.

In this operational context, the position of the front-line operator is different from that of other stakeholders, such as manufacturers, regulatory authorities or airline/ANSP Boards. If we take airline/ANSP Boards, their decision-making generates an operational context. Front-line operators have to work in that context; they must adapt to it and benefit or suffer the peculiarities of it. Furthermore, while company decision-making at the ‘blunt end’ is usually carried out under

conditions of sufficient and thoughtful deliberation (spanning days, weeks, months or years), front-line decision-making occurs under time pressure of seconds, sometimes in urgent or emergency situations. There is no time for thoughtful deliberation.

In other words, and returning to Figure 1, strategic decisions that may have a significant impact on risk occur under conditions that allow decision makers to consider strategic options and the likely results of any decisions. On the contrary, the specific activity of front-line operators will often lack ample possibilities of choice and foresight.

The errors corresponding to 'sharp end' decision making are sometimes called 'active failures', which are typically committed by the front-line operators. Errors corresponding to 'blunt end' managerial decision making, which affect the system more generally, are sometimes called 'latent failures'. Both involve a lack of success in achieving desired outcomes, in a context.

A real example illustrates this.

The facts:

A Boeing 737 pilot approaching Ciampino 'lost situational awareness' and diverted to Fiumicino with adverse weather. The crew began to miss ATC instructions and descended below the assigned altitude, getting into conflict with other traffic. It was then unable to approach Fiumicino and finally diverted to Pescara, where the airplane landed safely with just 1520 kg of fuel remaining.

The conclusions of the Aviation Authority Report:

Primary cause: the incorrect operation and conduct of flight by the flight crew in adverse weather at the unplanned and unbriefed diversion to Rome Fiumicino Airport.

Contributing causes:

- the captain's state of mind: illness, depression due to the recent loss of a child
- the limited experience of the first officer

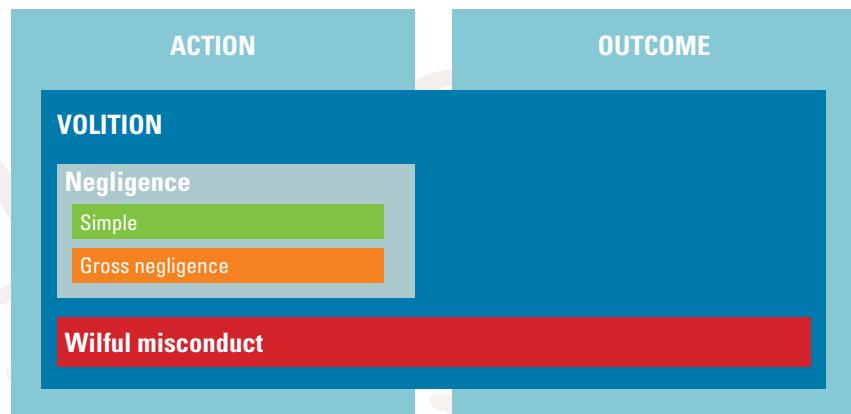


Figure 1: Negligence and wilful misconduct within the frame of reference of action, outcome and volition.

- poor cockpit resource management and cooperation
- inappropriate information provided by air traffic control in non-standard language
- inadequate analysis of weather data by the flight crew
- incorrect use of onboard weather radar by the flight crew
- the absence of timely available ground radar based on weather data in the Rome approach sectors, and
- lack of the minimum safe altitude warning on the radar approach of Rome's air traffic control.

If we carefully examine the elements of this incident (to which we can add the lack of fuel reserve, which generated an additional risk), we observe that most of them are structural/systemic. That is, they correspond to decisions resulting from a business or management option: letting the captain fly in an adverse mental situation, lack of pilot

the risk of a potentially dangerous event, to the extent that relevant airline personnel other than front-line operators should have foreseen and avoided.

The risks

This situation suggests some unknowns regarding the real effects of Just Culture and the risks that misuse of it can bring.

There is a considerable difference between mistakes at the managerial level and mistakes of front-line operators. Therefore, it would be interesting to specify if the notion of Just Culture should be applied not only concerning the actions of front-line operators but also of those who hold planning, direction or supervision positions related to air navigation. The Just Culture concept might apply not only to front-line operators, but to all the personnel of an organisation as regards decisions related to operational safety.

Curiously, however, the Spanish version of Article 2 (12) of Regulation 376/14 does not coincide

with translations to other languages in one essential detail. The Spanish version defines Just Culture as that "... *in which operators and other front-line personnel are not punished ...*" for their actions that are not malicious or seriously imprudent.

On the other hand, the English version of the Regulation, and also that of the

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experience, lack of training regarding the use of weather radar by the crew, the absence of alerts on the onboard weather radar.

The crew's decisions – which seemed reasonable to the crew at the time – luckily did not end in a tragedy. But the ecosystem in which the pilots' work developed was adverse and raised



different EUROCONTROL documents, are slightly different: "...'just culture' means a culture in which front-line operators or other persons are not punished" This seems to be a broader scope, depending on how it is interpreted.

The distinction itself is not that important. In principle, other people who are not strictly filling front-line positions benefit from the confidentiality of the reporting system and the guarantee that they will not be sanctioned, except for gross negligence or wilful misconduct.

But it could be problematic to include not only 'second-line operators'/ support staff but also *all* those who make decisions within an organisation. The reporting of incidents applies from bottom to top in the organisational structure. Apparently, that is the philosophy contemplated in Article 4 of Regulation 376/2014 regarding mandatory notification. Managers, companies and organisations may be likely to balance other points of view and interests that may prevent them from engaging in a culture of voluntary reporting.

Decisions made at a managerial level usually correspond to strategic options adopted after consideration of a situation. This implies more time for decision making, and therefore the assumption of the possible consequences. The decisions and actions of those persons filling managerial positions would normally be seen as wilfully and consciously adopted and undertaken. This, in turn, implies that in principle it would be easier to regard them as likely to cover *both action and outcome*.

Going back to the example of the decision to permit aircraft to fly with an insufficient amount of fuel, managers and departments at a managerial level will hardly be encouraged to report situations that may be the consequence of strategic decisions that generate an operational context or ecosystem.

We do not yet have a practical perspective or a jurisprudential background on how to judge systemic

deficiencies arising from the decisions taken at the corporate or organisational level, which increase operational risk.

There may also be a reporting deficit. If we deal with the reporting system in a bureaucratic way, and front-line operators can't see clearly improvements from their reporting, they may get sceptical about the system. This may reduce reporting, paradoxically harming the front-line operator position.

Finally, it is necessary to distinguish between:

- securing the information reported in order to avoid sanctions that do not relate to gross negligence or wilful misconduct, and
- the required transparency with respect to the collecting of information, the treatment of such information and the solutions adopted in line with the provisions set forth in Articles 8 et seq. of the Regulation 376/2014.

Conclusions

- Just Culture is now a legislative reality. Understanding this fact should be the first step of an approach to Just Culture by lawyers. Just Culture is no longer merely a theoretical notion.
- There is considerable controversy and concern among front-line operators about how the notions of gross negligence and wilful misconduct that are traditionally used in the field of criminal and civil law should be interpreted.
- There is still a lack of jurisprudence (legal theory) with respect to these two notions in the specific field of aviation and the protection of the information reported.
- Nor do we have jurisprudence regarding the compatibility of national legislations with supranational regulations, and the harmonisation of them.
- The Just Culture system at the organisational level should promote progress in terms of safety, but this shall only be achieved with efficient notification procedures and careful and exhaustive treatment of the information reported.

- It is crucial to monitor exhaustively the information, improvements and advances in safety derived from the reporting system and based on the information obtained from the repository.
- It is necessary to distinguish the protection of the reported information (in order not to sanction the front-line operator) and the transparency of the reporting system itself, and the associated benefits.
- Just Culture must not encourage an adverse ecosystem for front-line operators, in which discouragement and opacity regarding the treatment and use of information end up worsening the conditions in which operators carry out their work.

Returning to the delightful scene quoted at the beginning, Lucy and her friend should neither be sanctioned for faults that are excusable, nor be forced to carry out their work under such conditions with associated risk levels well above what is desirable. S



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