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Social Representations of Risk in Cameroon: Influence of Sociopolitical and Cultural Context

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Abstract

The threat of sociopolitical instability is a perennial subject of political debate in Cameroon, even though the country’s stability has never really been challenged since independence. Given this omnipresent discussion on the need to preserve social cohesion, the aim of the present study was to analyze social representations of risk. Two studies were carried out among two samples (N1 = 31 and N2 = 156) of Cameroonians with higher education diplomas. Data collected by means of free association and characterization questionnaires were subjected to hierarchical, similarity and Q-sort analyses. These revealed that governance failures are regarded as factors that might undermine social cohesion. Comparative analysis of the risk representations of the country’s different ethnic groups revealed several differences. Previous research had emphasized the importance of proximity to the object in the construction of a social representation, and this was also evident in the present study, as social representations of risk for both the whole sample and the different ethnic groups were structured around specific threats or ills that undermine Cameroonian society.

Keywords: Cameroon, risk, social representation, sociopolitical instability, ethnic groups, multicultural, poor governance

Résumé

La menace d’instabilité sociopolitique est un sujet de débat politique récurrent au Cameroun alors que la stabilité du pays n’a vraiment pas été remise en cause depuis l’accession du pays à l’indépendance en 1960. Face à l’omniprésence du débat sur la nécessité de préserver la cohésion sociale, cette étude avait pour objectif de mettre en évidence les représentations sociales du risque. Deux études qualitative et quantitative ont été réalisées auprès de deux échantillons (N1 = 31 et N2 = 156) de Camerounais diplômés de l’enseignement supérieur. La tâche d’associations libres et le questionnaire de caractérisation administrés aux participants ont été respectivement soumis à une analyse hiérarchisée, une analyse de similitude (associations libres) et à une analyse Q-sort (questionnaire de caractérisation). Les données analysées indiquent que les défaillances de la gouvernance publique sont considérées comme les facteurs susceptibles d’hypothéquer la cohésion sociale. L’analyse comparative des représentations du risque entre les différents groupes ethniques du pays fait ressortir quelques différences. Comme d’autres travaux sur les représentations sociales, cette étude met en exergue l’importance de la distance à l’objet dans la construction des représentations sociales car les représentations sociales du risque ici, aussi bien pour l’ensemble de l’échantillon que pour les différents groupes ethniques, sont structurées autour de menaces ou des maux qui minent la société camerounaise.

Mots-clés: Cameroun, risque, représentations sociales, instabilité sociopolitique, groupes ethniques, multiculturel, mauvaise gouvernance
Non-Technical Summary

Background
Given that Central Africa is in the grip of multiple crises, Cameroon’s sociopolitical stability arouses both admiration and curiosity. Nonetheless, factors responsible for crises in neighboring states such as poor governance, corruption, and cultural differences, among others, are also present in this country.

Why was this study done?
This research was conducted in order to identify factors that are considered as risks, from the perspective of university students and of university graduates of four different cultural groups. Based on research by Moscovici (1961) showing that naive knowledge (or social representations) influences individuals' practices toward a given object, science or political system, we set out to identify the factors associated with the term “risk” in the Cameroonian context.

What did the researchers do and find?
In the main study, we interviewed 156 Cameroonians of both sexes and from the country’s four cultural groups, administering a free-association task in which participants had to list the words and expressions they associated with the word “risk,” and a characterization questionnaire that required them to choose the most and least characteristic elements associated with risk. The naive structure of the lay thinking about risk that emerged from this study showed that (1) governance deficiencies are perceived as the main threats faced by the country, and (2) the perceived seriousness of these threats varies according to the sociocultural group.

What do these findings mean?
The findings of this study suggest that the social representation of risk in Cameroon is strongly influenced by sociopolitical and cultural realities. Taking these realities into account in the Cameroonian context when defining and implementing risk prevention policies could help to make the latter more effective.

A publication on Le Parisien newspaper's website on 18 September 2015 claimed that no fewer than 106 political regime changes that had occurred in African states since 1960 were the result of coups. For Bedzigui (2008), the recurrent political crises can be explained by both structural (colonial legacy, system of governance, territorial organization of states) and cyclical (inadequacy of crisis resolution solutions, exploitation of natural resources) factors. These factors are also evident in Cameroon.

Recent years have seen the publication of particularly alarmist reports and studies about the risk related to the sustainability of Cameroon’s social stability (International Crisis Group, 2015). Paradoxically, the country has been
able to preserve its stability, witness the fact that no coup or partition has ever occurred there. This paradox raises questions about the meaning of risk in the Cameroonian context. Given that social representations are linked to identity and intergroup relations, and highlight the relationship that individuals have with a given social object, we decided to explore social representations of risk in Cameroon.

Social Representations: Theoretical Framework and Structural Approach

Defined as "a form of knowledge, socially elaborated and shared, with a practical aim and contributing to the construction of a reality common to a social group" (Jodelet, 1989, p. 53), social representations can be regarded as a grid for understanding how individuals and groups give meaning to their physical and social environment. Social representations are derived from the concept of collective representations (Durkheim, 1898). Moscovici (1961) added the term social to demonstrate that representations are dynamic, as they are contingent upon the changes that take place in societies. Moscovici (1961) demonstrated that representations lie at the interface between the collective and the individual, as they arise from interactions between individuals, just as they relate to social groups, through processes of objectification and anchoring.

Since Moscovici (1961)’s findings, several different approaches to the study of social representations have been developed. The present study adopted a structural approach, whereby the social representation of an object is a structured and organized set of beliefs, attitudes, knowledge, and information (Abric, 1994). Each representation is made up of two entities: a central core and a peripheral system. The central core contains a limited number of elements that give meaning to the representation. These central core elements are defined as consensual and non-negotiable (Abric, 1976; Flament, 1994; Moliner, 1988). They are characterized by a "strong power of connectivity, and they ensure the continuation of the representation by generating its meaning but also its organization" (Gaymard & Bordarie, 2015, p. 802). The peripheral system depends on the central core, and is the densest, most accessible and flexible part of a social representation. It allows the central core to be embodied in behaviors, and the representation to be adjusted according to the context and the individual. The peripheral system therefore protects the central core.

Concerning risk, a significant section of the research on social representations is to analyze how members of a group activate shared knowledge about a material (or immaterial) object, in order to protect themselves against a potential danger (Gaymard, 2012; Gaymard, Kay, & Etoundi, 2015; Joffe, 2003). Most research on risks of different kinds has highlighted the importance of considering the influence of culture on the sharing of this form of social thought when seeking to understand the contextual meaning of issues related to risk. For instance, Jaspal, Nerlich, and Cinnirella (2014) noted that identity, which is strongly correlated with cultural considerations, conditions individuals’ representations of climate change as well as their relationship to the environment. Similarly, when Kmiec and Roland-Lévy (2014) compared French and Romanian students’ social representations of risk, they found that differences were mainly based on cultural factors.

Social Representations of Risk in Cameroon: Influence of Historical Factors and Cultural Diversity

Despite the persistence of evils that could potentially trigger social crises, such as a stalled (in some people’s eyes) democratization processes and an outdated political class (Pigeaud, 2011), the endemic unemployment of young graduates (Ngahan & Mukama, 2004), the inadequacies of the health and education systems (Monteillet, 2005; World Bank, 2012), and deep hostility between certain ethnic and religious communities (International Crisis
Group, 2015), the country has managed to preserve its territorial and political unity. Cameroon's singularity, which is paradoxical to say the least, arouses both admiration and curiosity. For some, the explanation for Cameroon’s ability to escape the demons of instability may lie in the country's history and cultural diversity (Mvessomba, 2008).

Cameroon’s route to independence was a hard one, owing to the war for independence (1957-1962), which had a heavy death toll (Deltombe, Domergue, & Tatsitsa, 2011; Mbembe, 1991; Zachary, Joseph-Achille, & Emmanuel, 1989). Contrary to most Sub-saharan territories under French domination, the decolonization of Cameroon was a painful process, because of the huge loss of human life due war, with some saying that it was genocide (Deltombe et al., 2011; Mbembe, 1996). This traumatic period is frequently evoked when the nation faces aggression, in order to preserve social cohesion (Bessala, 2017; Kamto, 2017).

Cameroon is a multicultural country with two official languages: English and French. Although the different ethnic groups live side by side and interact daily, there is as yet no culture that transcends the identities inherent to ethnic affiliations. Therefore, it is still so difficult to define a Cameroonian identity. At most, we can consider like Bruneau (2003, p. 529) that in Cameroon, "patriotism covers diverse identity consciousness, [it is] a nation whose consensual unity rests on delicate balances, and which draws from its very plurality an envied geopolitical weight" [our translation]. As Cameroon is very much a cultural mosaic, harmonious cohabitation, and thence the very existence of Cameroon as a nation, essentially depends on the balances that regulate relations between ethnic groups.

Cameroon has no fewer than 245 ethnic groups and languages (Bruneau, Cosaert, & Bart, 2001), organized into four major ethnic and cultural groups: Grassfields, Sudano-Saharan, Fang-Beti, and Coastal. These groups can be distinguished from one another not only by their culture, but also by their attachment to a geographical area, being associated respectively with the western mountainous region (Grassfields), the northern region (Sudano-Saharan), the central, southern and eastern parts (Fang-Beti), and mainly the Atlantic seaboard (Coastal). It is for this reason that Cameroon is considered to be organized into cultural areas that differ according to their particular forms of traditional organization. Whereas the Grassfields and Sudano-Saharan groups are structured around strong traditional institutions headed by a leader from a dynastic lineage and are particularly attached to ancestral customs (Burnham, 1991; Froelich, 1954; Hamani, 2005; Tchegho, 2001; Tematio, 2014), the Fang-Beti and Coastal peoples have a much more flexible social organization, as traditional leaders do not occupy a hegemonic place. Some chiefdoms in these two groups have elected leaders (Fouda Ongodo, 2004). Moreover, the entrenchment of political parties seems to mirror the country’s cultural organization. Most parties have a regional base that corresponds to the origins of their leaders. As a result, electoral behavior is mostly dictated by tribal considerations (Menthong, 1998; Mouiche, 2000; Njoya, 2002). These considerations do not, however, give rise to violent antagonisms, as the strains that are often observed mostly arise from government choices regarding investment and appointments to administrative functions that are perceived as being unfavorable to certain groups, as suggested in the so-called 2002 Memorandum of the “Great North” Population (Zinga, 2002).

**Why Study Social Representations of Risk in the Cameroonian Context?**

Given that the context exerts considerable influence on the structure of social representations (Bauer & Gaskell, 1999), we reasoned that studying social representations of risk would allow us to understand how this naïve knowledge is shaped by factors that are specific to Cameroon.

In this line, the present study was intended to answer two main questions: What is the social representation of risk among Cameroonians? Are there differences in this representation among different ethnic groups in Cameroon?
Pilot Study

Method

Having chosen to apply a structural approach, which requires the use of more than one tool for data gathering, we adopted a two-step approach. First, a pilot study was carried out to pretest the hypothesis that social representations of risk exist on a small sample of participants. Then, the results of this pilot study informed our larger, main study.

Participants

The pilot study sample consisted of 17 men and 14 women (N = 31; mean age 25.6 years). Participants came from three of the country's four cultural areas: Fang-Beti (n = 18), Grassfields (n = 8), and Coastal (n = 5). There were no Sudano-Sahelian participants, as we did not have any contacts from this cultural area who could take part in an online survey. For this reason, therefore, as well as the very limited number of participants, we decided not to conduct a comparative analysis between ethnic groups. All the participants were university graduates, as they were the most accessible. Cameroonian expatriates were excluded from the investigation, as we believed that living outside Cameroon's social and cultural context might bias the results.

Procedure

The pilot study was conducted via social media or by e-mail in May and June 2016. We administered a free-association task that asked participants “What are the words or expressions that come to mind when someone says, ‘risk in Cameroon’? Provide at least three and at most five”. Once they had produced their words and expressions, participants were invited to rank them in decreasing order of importance. They also had to justify in one sentence the choice and ranking of each word or expression.

Analytical Strategy

We used Evoc 2005 software to perform the hierarchical analysis (Vergès, Scano, & Junique, 2005). Hierarchical analysis uses two criteria to identify the central core and the peripheral elements of the representation: the number of times that a word (or expression) is cited (frequency), and its rank of importance, provided by respondents in a second phase (Flament & Rouquette, 2003). So, it makes it possible to determine each item’s probable membership either within the central core, the inner periphery, or the outer periphery of the social representation (Flament & Rouquette, 2003). This analysis consists in cross-tabulating the frequency of occurrence of a given word or expression with its mean rank. This technique is based on the idea that the more frequently an item appears in the corpus, and the closer its ranking is to one, the more characteristic it is of the inductive term. Hierarchical analysis therefore makes it possible to identify words or expressions as either central-core or peripheral elements of a social representation. To highlight the organization of this representation and ascertain whether it is adapted (see, for example, Gaymard & Bordarie, 2015), the mean rank of importance has to be defined, together with the minimum and intermediate frequencies. Bouhon (2009) recommends that the minimum frequency should be equal to the frequency of 10% of the words shared by the participants, while the intermediate frequency should correspond to the frequency of around 20% of the words shared by the sample. The intermediate rank should correspond to the median number of words or expressions that can be produced by a participant. However, these recommendations may be subject to modification, depending on the density of the corpus or sample (see Gaymard & Bordarie, 2015, for more details). In line with this approach, the structure of the social representation is characterized by a
table with four compartments: the top left-hand one contains the central-core items; the top right-hand one represents the inner periphery; the bottom left-hand one contains the contrasting items of the representation (on which the sample is divided into two subgroups); and the bottom right-hand one contains the items belonging to the outer periphery (Abric, 2003). The importance frequency approach aims to associate the quantitative dimension with the qualitative one, the hypothesis being that a central item is likely to be very present, if individuals have to classify their production in decreasing rank of importance, after spontaneously evoking the words and expressions associated with a given concept.

**Results**

In our pilot study, the evocation of risk in Cameroon mainly elicited sociopolitical and economic concerns, which formed the central core of the representation (see Table 1). Analysis of the table showing the structure of the social representation of risk showed that corruption, unemployment and poor governance were core elements. Most of the peripheral elements, such as social inequalities, poverty and financial investment, reflected sociopolitical and economic considerations. In addition, although they were peripheral elements, references to insecurity, terrorism, political uncertainty, criminality and civil war indicated that security issues also form part of the social representation.

**Table 1**

*Structure of the Social Representation of Risk Based on Data Yielded by the Pilot Study*

<table>
<thead>
<tr>
<th>Mean rank of importance ≤ 2.4</th>
<th>Mean rank of importance &gt; 2.4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Frequency</strong></td>
<td><strong>Rank</strong></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Corruption</td>
<td>11</td>
</tr>
<tr>
<td>Unemployment</td>
<td>9</td>
</tr>
<tr>
<td>Poor governance</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Political uncertainty</td>
<td>6</td>
</tr>
<tr>
<td>Insecurity</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of this pilot study allowed us to carry out our main investigation, conducted among a larger sample.

**Main Study**

**Method**

**Participants**

The main study was conducted in July and August 2016, in the cities of Yaoundé, Bafoussam, Obala, and Nkometou. To be consistent with the pilot study, we recruited a random sample that only included university graduates from around the country, who were either still at university or had already completed their studies. They were invited to take part in the study through posts on social media and through the researchers’ own networks. This choice was justified by the fact that, beyond the accessibility and sociological diversity of this category of the
population, university graduates in Cameroon come from all four of the country’s cultural areas. We reasoned that by comparing productions, we would be able to find differences inherent to their sociocultural origins. A total of 164 individuals took part in the study, but we only analyzed 156 productions, as eight participants were excluded for not completing the association test (see Table 2). Most participants were French-speaking urban dwellers (only 15 participants were English speakers).

### Table 2

**Statistical Data for the Final Sample**

<table>
<thead>
<tr>
<th>Variable / Modality</th>
<th>Number of participants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>67</td>
<td>42.94</td>
</tr>
<tr>
<td>Male</td>
<td>89</td>
<td>57.05</td>
</tr>
<tr>
<td>Cultural area of origin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grassfields</td>
<td>42</td>
<td>26.92</td>
</tr>
<tr>
<td>Sudano-Sahelian</td>
<td>21</td>
<td>13.46</td>
</tr>
<tr>
<td>Fang-Beti</td>
<td>75</td>
<td>48.07</td>
</tr>
<tr>
<td>Coastal</td>
<td>18</td>
<td>11.53</td>
</tr>
</tbody>
</table>

**Material and Procedure**

As both methodological triangulation and mixed method approaches make it possible to obtain more comprehensive results about social representations (Apostolidis, 2006; Caillaud & Flick, 2016; Gaymard & Cazenave, 2018), we administered two different tools to all the participants: a free-association task and a characterization questionnaire.

**Free-association task** — The free-association task was the same as in the pilot study. The main difference was that it was administered in a face-to-face meeting with investigators, where participants had to verbalize their answers as spontaneously as possible after hearing the inductor (Abric, 2003). After that, the investigator read out the expressions to ensure that they had been correctly transcribed. Participants were then invited to rank their productions in decreasing order of importance.

Participants’ productions were transcribed by the investigators ($N = 4$): the head of the research project and three psychology PhD students from the University of Yaoundé 1. They had previously been trained in administering the survey. They collected data from any participant who met the conditions for inclusion, with no restrictions related to the community of origin.

The data gathered were first entered in an Excel file. Based on the principles of lemmatization and synonymy, words referring to the same lexical field were reduced to a single expression (e.g., *theft*, *assault* and *rape* to *criminality*; *Boko Haram* to *terrorism*; *no work* to *unemployment*; *cronyism* and *sponsorship* to *corruption*). Similarly, when different words referring to the same lexical field were produced by the same participant, they were reduced to a single unit (Bouhon, 2009; Ferriere, 2009). We then submitted the participants’ productions to the same analysis as in the pilot study.

We also ran a similarity analysis on the free associations, using IRaMuTeQ software (Ratinaud, 2012; Ratinaud & Déjean, 2009). While hierarchical analysis makes it possible to identify the relative importance given to each
item, similarity analysis provides additional insight, in that it not only yields information on the importance of an item based on its frequency of occurrence, but also makes it possible to know the item’s degree of proximity to other items produced by the participant. More specifically, similarity analysis is defined as “the search for local maxima of similarity” (Flament, 1996, p. 145, our translation). According to Vergès and Flament (1997), who developed this methodology within the theory of the central core, “similarity is one of the main cognitive operations relating to social representations” (p. 74, our translation). Through the size of the expressions in the graph, and the presence or otherwise of connections between certain expressions, the similarity analysis provides information on the importance of a given term in an individual’s discourse. A graph can thus be used to identify both common and distinctive elements, depending on the variables of the corpus being studied (Marchand & Ratinaud, 2012).

To this end, the free-association data were entered in a LibreOffice file, where each participant’s production corresponded to a paragraph. These data were then exported to IRaMuTeQ, to run a similarity analysis. A minimum frequency of expressions was included in the analysis, according to the size of each sample.

**Characterization questionnaire** — The characterization questionnaire consisted of 12 items (see Table A1 in the Supplementary Materials) constructed from the 12 most salient free associations produced in the pilot study. The purpose of this questionnaire was to confirm or disprove the centrality of elements of the social representation. Participants were asked to choose the four items most characteristic of risk, and the four items least characteristic of risk in Cameroon. Those identified as the most characteristic were scored 3, and those identified as the least characteristic were scored 1 (Gaymard, 2003). The remaining four items were scored 2. The summed scores for each item were divided by the number of participants, to obtain means that allowed us to classify the items from the most characteristic to the least characteristic (Gaymard & Joly, 2012). The most characteristic items could be regarded as core elements of the social representation. The importance of each element was illustrated in a graphical representation. As the characterization questionnaire is a Q-sort questionnaire based on an equal probability model (Vergès, 2001), at the end of the statistical processing, we expected elements with a strong salience, and which were part of the representation’s core, to form a J curve. Elements forming a U curve would reflect the presence of subgroups in the population, insofar as they would be subject to contrasting judgments. Elements forming a bell curve would illustrate the periphery of the social representation. Finally, reversed elements would not be characteristic of the object (Gaymard, 2003; Gaymard & Joly, 2012).

To prevent their responses from being affected by the items in the characterization questionnaire, all the participants performed the free-association task before filling in the characterization questionnaire.

**Results**

**Social Representation of Risk for the Whole Sample**

After lemmatization, the free-association task yielded 727 words (4.66 per participant). The values of the diversity and rarity indices (11% and 41%) reflected the stereotypical nature of the participants’ discourse (Flament & Rouquette, 2003; Rouquette & Sensales, 1998). The diversity and rarity indices are characteristic of a stereotypical discourse in that they are respectively obtained from the ratio of the number of occurrences T to the size of the sample N, that makes it possible to determine the tendency of a group to use the same vocabulary to characterize a phenomenon, while the ratio of the number of hapax to the number of occurrences T makes it possible to evaluate the degree of diversity of discourse in a group. The lower their value (in percentage), the more discourse is considered characteristic of the existence of social representation.
The hierarchical analysis using EVOC software showed that the core of the representation contained corruption, unemployment, and poor governance (see Table 3). These were the items that were both frequently cited and ranked high in importance. They referred to sociopolitical and economic considerations. The inner and outer peripheries were composed of items that referred either to violence (terrorism or war) to health and social matters (disease, poverty or famine), or to social identity (tribalism). Contrasting items (alternation and economic crisis) expressed a diversity of opinions among participants on the importance of these political and economic concerns.

<table>
<thead>
<tr>
<th>Mean Rank ≤ 2.5</th>
<th>Mean Rank &gt; 2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Rank</td>
</tr>
<tr>
<td>Poor governance</td>
<td>46  2.18</td>
</tr>
<tr>
<td>Corruption</td>
<td>57  2.37</td>
</tr>
<tr>
<td>Unemployment</td>
<td>54  2.49</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency &lt; 20</td>
<td></td>
</tr>
<tr>
<td>Alternation</td>
<td>13  2.08</td>
</tr>
<tr>
<td>Economic crisis</td>
<td>11  2.26</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The similarity analysis we performed (see Graph A1 in the Supplementary Materials) highlighted the pivotal role of the expressions war and unemployment, as they were closely linked, and connections between elements of the representation were organized around them. The thickness of the edges and the representation of insecurity and corruption seemed to indicate that these items were also of importance.

Means (see Table 4) and curves (see Figures A1 and A2 in the Supplementary Materials) of the characterization questionnaire showed that unemployment, corruption, poor governance, social inequalities, poverty, health system and insecurity were the most characteristic elements of the representation. Five items (criminality, political uncertainty, civil war, terrorism and financial investment) were not characteristic of risk.

The three data analyses above showed that corruption and unemployment were the two most important items in the structure of the representation of risk for our sample.
Table 4

*Mean Item Scores on Characterization Questionnaire*

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>17</td>
<td>42</td>
<td>354</td>
<td>413</td>
<td>2.647</td>
</tr>
<tr>
<td>Corruption</td>
<td>23</td>
<td>70</td>
<td>294</td>
<td>387</td>
<td>2.481</td>
</tr>
<tr>
<td>Poor governance</td>
<td>30</td>
<td>92</td>
<td>240</td>
<td>362</td>
<td>2.321</td>
</tr>
<tr>
<td>Social inequalities</td>
<td>45</td>
<td>100</td>
<td>183</td>
<td>328</td>
<td>2.103</td>
</tr>
<tr>
<td>Poverty</td>
<td>41</td>
<td>126</td>
<td>156</td>
<td>323</td>
<td>2.071</td>
</tr>
<tr>
<td>Health system</td>
<td>62</td>
<td>76</td>
<td>168</td>
<td>306</td>
<td>1.962</td>
</tr>
<tr>
<td>Criminality</td>
<td>51</td>
<td>150</td>
<td>90</td>
<td>291</td>
<td>1.865</td>
</tr>
<tr>
<td>Insecurity</td>
<td>66</td>
<td>92</td>
<td>132</td>
<td>290</td>
<td>1.859</td>
</tr>
<tr>
<td>Political uncertainty</td>
<td>60</td>
<td>122</td>
<td>105</td>
<td>287</td>
<td>1.840</td>
</tr>
<tr>
<td>Civil war</td>
<td>73</td>
<td>122</td>
<td>66</td>
<td>261</td>
<td>1.673</td>
</tr>
<tr>
<td>Financial investment</td>
<td>72</td>
<td>148</td>
<td>30</td>
<td>250</td>
<td>1.603</td>
</tr>
<tr>
<td>Terrorism</td>
<td>84</td>
<td>108</td>
<td>54</td>
<td>246</td>
<td>1.577</td>
</tr>
</tbody>
</table>

Social Representation of Risk According to Sociocultural Origins

The free-association data revealed disparities in the words produced by the four ethnic groups. Diversity and rarity indices showed that stereotypical discourse was more deeply rooted in some groups than in others, with the Grassfields and Fang-Beti groups having the most stereotypical discourse (see Table 5). Hierarchical analysis showed that, overall, the same expressions were used in all the groups, but they occupied different positions in the structure of the representation (see Table 6, Table 7, Table 8 and Table 9). Thus, *poor governance* and *corruption* were core elements for all groups, while *unemployment* was a core element for all the groups, except the Fang-Beti. *War, insecurity,* and *social crises* were core elements for the Sudano-Sahelian group, having the same importance as *war* and *insecurity* did for the Grassfields group and *social crises* did for the Fang-Beti group. *Terrorism* only emerged as a core element for the Fang-Beti group. Alongside the elements that appeared in the central core of at least one group, others such as *injustice, alternation, disease, famine, tribalism, conflict* and *natural disasters* were found to be peripheral elements (inner or outer periphery, or else contrasting) in one or more of the groups.

Table 5

*Mean Number of Free Associations, Diversity and Rarity Indexes in Each Ethnic Group*

<table>
<thead>
<tr>
<th>Indicator / Group</th>
<th>Grassfields</th>
<th>Fang-Beti</th>
<th>Sudano-Sahelian</th>
<th>Coastal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free associations</td>
<td>4.64</td>
<td>4.69</td>
<td>4.71</td>
<td>4.44</td>
</tr>
<tr>
<td>Diversity index (%)</td>
<td>19.48</td>
<td>21.30</td>
<td>39.40</td>
<td>43.75</td>
</tr>
<tr>
<td>Rarity index (%)</td>
<td>55.26</td>
<td>40.00</td>
<td>59.00</td>
<td>48.57</td>
</tr>
</tbody>
</table>
A chi-square test performed to evaluate the importance of expressions that recurred in the corpora of the four groups revealed significant differences when participants referred to poor governance and natural disasters ($p_s = .033$ and $.003$). These items were relatively more present in Coastal and Sudano-Sahelian groups. Poor governance represented 11.25% of occurrences in the Coastal group, while natural disasters represented 6.06% of occurrences in the Sudano-Sahelian group.

The similarity analysis revealed that unemployment and war were core elements for all the groups. They had a high level of importance in all four groups, as shown in the graphs (see Graphs A2, A3, A4 and A5 in the Supplementary Materials). Corruption (Grassfields, Coastal and Fang-Beti), insecurity (Grassfields, Coastal and Sudano-Sahelian), and social crisis (Grassfields, Sudano-Sahelian and Fang-Beti) were core elements for three groups. The Grassfields and Coastal groups considered poor governance to be one of the most important elements characterizing risk. Disease was also a key element for the Grassfields group, and natural disasters for the Sudano-Sahelian group.
Table 8
Structure of Risk Representation for Coastal Participants According to Free-Association Analysis (EVOC)

<table>
<thead>
<tr>
<th>Mean rank &gt; 3.5</th>
<th>Mean rank ≤ 3.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Rank</td>
</tr>
<tr>
<td>Frequency ≥ 6</td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>6</td>
</tr>
<tr>
<td>Poor governance</td>
<td>9</td>
</tr>
<tr>
<td>Corruption</td>
<td>6</td>
</tr>
<tr>
<td>Frequency &lt; 6</td>
<td></td>
</tr>
<tr>
<td>Insecurity</td>
<td>5</td>
</tr>
<tr>
<td>War</td>
<td>5</td>
</tr>
<tr>
<td>Tribalism</td>
<td>3</td>
</tr>
<tr>
<td>Conflict</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 9
Structure of Risk Representation for Sudano-Sahelian Participants According to Free-Association Analysis (EVOC)

<table>
<thead>
<tr>
<th>Mean rank &gt; 3.5</th>
<th>Mean rank ≤ 3.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>Rank</td>
</tr>
<tr>
<td>Frequency ≥ 6</td>
<td></td>
</tr>
<tr>
<td>Corruption</td>
<td>8</td>
</tr>
<tr>
<td>Poor governance</td>
<td>9</td>
</tr>
<tr>
<td>Unemployment</td>
<td>6</td>
</tr>
<tr>
<td>Insecurity</td>
<td>9</td>
</tr>
<tr>
<td>Social crisis</td>
<td>7</td>
</tr>
<tr>
<td>War</td>
<td>6</td>
</tr>
<tr>
<td>Frequency &lt; 6</td>
<td></td>
</tr>
<tr>
<td>Famine</td>
<td>3</td>
</tr>
<tr>
<td>Poverty</td>
<td>3</td>
</tr>
<tr>
<td>Disease</td>
<td>4</td>
</tr>
</tbody>
</table>

Concerning the characterization questionnaire, of the 12 items, the means and curves (see Figures A3, A4, A5 and A6 in the Supplementary Materials) suggested that unemployment, social inequities and poor governance were the most salient in all the groups, while corruption (Grassfields, Fang-Beti and Coastal), insecurity and health system (Grassfields, Sudano-Sahelian and Fang-Beti) were core elements in three groups. Poverty (Fang-Beti and Coastal) and political uncertainty (Grassfields) were also viewed as characteristic of risk. The four remaining items (criminality, civil war, financial investment and terrorism) were considered as peripheral and less-characteristic of risk in all the groups.

A one-way analysis of variance performed on the mean item scores of the characterization questionnaire revealed significant differences between participants from the four cultural areas on two items: civil war ($p < .049$) and insecurity ($p < .019$). This means that, depending on which group participants belonged to, these two elements did
not have the same importance in defining what risk is. References to civil war and insecurity were given much more importance in the Fang-Beti and Grassfields groups than in the Sudano-Sahelian and Coastal groups.

**Discussion**

Although there is an abundance of research on the representation of risk in the literature, commonsense knowledge about risk among the Cameroonian population had yet to be explored and was thus the subject of the present study. We carried out a pilot study and a main study, adopting a structural approach to social representations of risk in both. Results showed that the social representation of risk in Cameroon is centered around sociopolitical, economic and security concerns. This was illustrated by the importance of elements such as corruption, unemployment, poor governance, social inequalities, poverty, health system, insecurity and war in the organization of the representation yielded by the various analyses we undertook. Depending on the tool we used, these were either core elements or peripheral ones (i.e., reflecting individual and above all intergroup differences).

The convergence around the same themes regarding the social representation of risk has two possible explanations inherent to the context and the characteristics of our samples.

The importance given to sociopolitical and economic considerations can be explained by their impact on people’s daily lives. For instance, corruption, one of the core elements, is known to be a major check on the country’s development, with Cameroon being regarded as one of the most corrupt countries in the world (Transparency International, 2019). Its consequences may therefore explain why it is considered as a threat to individuals.

We also noted a specific objectification process in our sample. The representation of risk did not contain any general or emotional considerations, because the expressions around which the representation is organized do not have an affective dimension. It seems that information was selected so as to be in tune with people’s daily lives. These considerations focused mainly on public governance issues. This can be interpreted as reflecting the huge influence of public policies (or rather the failure of these policies) on social thinking. The present results about the social representation of risk in Cameroon suggest that government policy has little impact on the threats faced by the population. This is in line with the findings of Amnesty International (2017) indicating that governance failures in Cameroon are a potential source of serious social crises. It suggests that governments, both in Cameroon and in other countries on the African continent with persistent weaknesses of governance, as revealed in recent reports (Transparency International, 2019), must prioritize the public interest in order to avoid the emergence of pockets of discontent that could potentially lead to a serious social crisis.

As with the objectification process, we can assume that the anchoring process was responsible for some of the differences we observed between the different groups analyzed. While elements of the representation were the same, the organization was not strictly the same across all four sociocultural groups. The structure of risk representation in each of these groups showed that social appropriation of social objects generally depended on the individual’s proximity to the object and cultural factors. For instance, the Sudano-Sahelians probably placed more emphasis on security issues because the terrorist group Boko Haram is prevalent in the northern part of the country from which they originate, while the lower variability observed in the organization of the representation in the Grassfields group can be interpreted in light of the culture of consensus that prevails in this cultural area (Tchoupie, 2009). These differences indicate that the appropriation of events and social reality was contingent
upon each group’s interests, norms and contexts. We can therefore conclude that social representations are determined by different types of practices and by the sociocognitive salience that the object has for everyone (Flament & Rouquette, 2003). As context influences the way that information about social reality is selected, lay thinking about risk must be considered, particularly when defining prevention strategies, as it is representations that determine behavior, rather than objective knowledge.

Another major observation is that the structure of the social representation of risk that emerged from the present study was clearly at odds with the conclusions of similar research conducted in other sociocultural contexts. When Kmiec and Roland-Lévy (2014) explored the social representations of risk among French and Romanian students, they found that they were mainly organized around the gain/loss pair. In our two studies, risk was considered solely through the prism of loss or deprivation. The losses and deprivations identified here were beyond the participants’ control, as citizens do not define public strategies or policies to curb ills such as corruption or unemployment—at least not directly. They therefore did not make an internal attribution. By contrast, Japp and Kusche (2008) claimed that the fundamental difference between risk versus danger is the controllability versus uncontrollability of damage. The discrepancy between what emerged from the present study and what both Kmiec and Roland-Lévy (2014) and Japp and Kusche (2008) found reinforces the idea that the appropriation of a social object is strongly influenced by individuals’ social membership.

The comparative analysis based on the sociocultural variable did not reveal the existence of any real antagonism between communities, as references to discrimination based on ethnic origin did not emerge as a characteristic element of risk. This can be explained by the heterogeneous nature of Cameroonian society, which forces groups to be intermingled and therefore dependent on each other. This configuration of society makes it difficult to avoid having smooth interactions with people of different origins. This is congruent with Bruneau's (2003) conclusions, for whom the sustainability of Cameroon as a nation depends mainly on balances between ethnic groups. Other countries in Africa, and even in other parts of the world, can therefore draw inspiration from how diversity is handled in Cameroon to preserve a smoothly cohabitation between groups or restore social cohesion.

While discrimination based on ethnicity cannot objectively be ignored in the Cameroonian social context, the social representation of risk that emerged in the present study suggests that in-group preferences do not prevail when it comes to preserving social cohesion. The existence of legislation and political practices aimed at preserving a regional balance probably explains the continuing cohesion between the country’s ethnic groups. This is in line with Yodou Sibeudeu’s (2011) conclusions. For this author, some conflicts have been avoided as a result of this governance model. The involvement of all the various groups in managing public affairs means that actions potentially leading to social crises cannot be justified by people claiming that their group is more powerful than the others. In a country where governance is shared by all communities, blame for a new social crisis would also have to be shared.

Despite the interesting lessons that can be drawn from this study, we acknowledge that some constraints and choices may have had an impact on the interpretation of the results.

First, the small size of the sample and the choice of an educated population (all the participants were university graduates and the majority lived in urban areas), as well as disparities between the representation of the different ethnic groups and the actual sociological balance, limit the extent to which the results of this study can be generalized. Further research should be conducted to overcome these shortcomings and obtain a sample that truly
reflects the country’s sociodemographic realities. By doing so, we would see the impact not only of the sociocultural origins’ variable, but also of place of residence and education level on the social representation of risk.

In addition, the lack of precise data on participants’ age and education level prevented us from controlling for these variables. This would certainly have increased the relevance of the results.

Furthermore, the violent social crisis that has rocked the English-speaking regions since November 2016, a few months after the data for this study were gathered, rather undermines the notion that there is a form of consensus among the communities on the need to preserve the country’s unity. The under-representation of participants from the regions affected by the ongoing crisis in this study may explain why the feeling of marginalization voiced by English-speaking secessionist leaders was absent in our results.

As the social representation of risk in the present study particularly emphasized the influence of public policy, it is important to explore the impact of this representation on Cameroonian’s political behavior, particularly during elections. The longevity in power of the country’s current head of state (37 years) would appear to contradict the idea that the population mistrusts its rulers. It may be that this longevity justifies the system (Jost & Banaji, 1994) and serves the palliative function of reducing anxiety and perceived threat, rather than showing that the present incumbent knows how to exploit an illegitimate or flawed system. This hypothesis should be explored in future research.

**Conclusion**

The present study shows that common knowledge about risk in Cameroon is mainly built around social realities that the country’s history and existential issues have helped to structure. The different analyses of free associations and the ranking of items in the characterization questionnaire indicated that the government’s inability to address certain evils affecting individuals’ living conditions is the main threat. The participants’ questioning of the public authorities’ action, regardless of their ethnic origins, points to a form of consensus among ordinary citizens with respect to the responsibilities of decision-makers. The discrepancies we noted did not reflect any real opposition between the four groups.

The governance failures highlighted in the present study can be seen as a challenge for public leaders, as it suggests that public action should take the aspirations of the population into account. This would encourage people to engage more in the preservation of social stability, instability being considered as one of the main hazards. Government policies promoting wellbeing and self-fulfillment would prompt individuals to become frontline actors in ensuring their country’s security, thereby safeguarding its unity. Policies designed to satisfy the population would consolidate the peaceful coexistence between groups, as there would be very little reason for individuals to criticize members of an out-group.

The social representation of risk identified in the present study provides a snapshot of the factual, cultural and historical elements that Cameroonians view as threats to social cohesion. This snapshot highlights flaws in the governance system that could undermine the country’s vaunted. It is therefore up to the public authorities to provide the most appropriate responses to the concerns raised here, so that Cameroon, this Africa in miniature, continues to be cited as an example because of its ability to preserve the integrity of its territory and social cohesion in a seriously troubled Central African region.
Notes

i) Public correspondence addressed to the Head of State by some elites of the three northern regions of the country in which socio-economic and political issues inherent to these regions are presented.

ii) Using the transcoding technique (Gaymard, 2003), the four items chosen as the most characteristic by each participant were coded 3, while the four least characteristic were coded 1. The four remaining items were coded 2. After summing the scores for a given item and dividing the total by the number of participants who selected that item, we were able to calculate a mean score (summed scores per item/N) so that we could rank the items from the most characteristic to the least characteristic.

iii) The crisis started out as a movement of lawyers demanding the translation into English of the OHADA treaty that regulates commercial law in African French-speaking countries, to take into consideration the specificity of Cameroon. It has very quickly turned into a political and armed protest where some are demanding the return to two federal states, others the independence of the English-speaking part of the country.

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Competing Interests

The authors have declared that no competing interests exist.

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Supplementary Materials

The supplementary materials contain graphs illustrating the organization of the risk representation generated both by the analysis of free associations under IRaMuTeQ, and by the characterization questionnaire. It also presents the items of the characterization questionnaire (for access see Index of Supplementary Materials below).

Index of Supplementary Materials


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