



Credibility and/or anxiety - The moderators of political information on migration

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ABSTRACT

In the policy of migration information campaigns Western governments aim to influence perceptions on irregular migration in potential sending countries. While information campaigns are called the ‘ethical part’ of Western border politics, critical research literature questions their legitimacy due to anxiety-inducing messages, and the (lacking) credibility of Western implementers in the Global South. Drawing on dual-process theories from Psychology, and literature on credibility and emotions in politics, I expect that information provision moderated by anxiety and/or credibility are equally performing an information updating by enhancing the perception of the prevalence of irregular migration, but via different theoretical frames. To disentangle the independent and interdependent effects, I conducted a field experiment with two independent treatments in a real European migration information campaign reaching 2612 Nigerians. The overall information-effect results reveal an increased perception of irregular migration prevalence in ones surrounding, and a decrease in commonality of irregular migration when attributed to oneself. The moderators, credibility and anxiety, achieve similar levels per moderator and jointly but for distinct outcomes. If the credibility of the sender is assured, the perception of general topic prevalence is increased and only slightly changes the self-estimate, while anxiety-triggering enhances the self-attribution, i.e. own commonness of irregular migration and less so a general prevalence perception. The results support the two distinct paths of the theoretical dual-process framework. Additionally, by providing causal and multi-treatment evidence, this study contributes to a normative debate on the practical implementation of a migration policy, its purpose, and techniques in information transmission more broadly.

3. Introduction

Searching for the best means of communication to support the reception of information in information campaigns has long been a goal of public speakers. This holds for Aristotle’s classic Art of Rhetoric as well as more recent studies on election-related campaigns (Bidwell et al., 2020; Dunning et al., 2019), health information campaigns (Nyhan and Reifler, 2015; Rink and Wong-Grünwald, 2017), misinformation campaigning (Berinsky, 2017; Munger et al., 2022) and fake news (Allcott and Gentzkow, 2017; Lazer et al., 2018). Information campaigns about migration follow the same aim. The aim of this newly established component of migration politics, is to do their best in raising awareness on the issue of (irregular) migration and potentially change the norms, attitudes, and behaviors among people in potential migrant sending countries (i.a. Scholten and van Nispen, 2015; Caso and Carling, 2024). However, the ethical credentials of information campaigns to reach for the most effective means to reach their audience are called into question.

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Beyond the generally polarized public opinion on irregular migration, what raises ethical criticism is the externalization, the peculiarity of a state acting in another state to protect its borders. Although the school of critical research sees information campaigns as the more ethical line of border politics (Pécoud, 2023), authors challenge the legitimacy of these campaigns for two principal reasons. On the one hand, the campaigns are perceived as unethical due to their use of anxiety-inducing messages, particularly in power-imbalanced contexts where Western governments implement them in the Global South. This is evidenced by a multitude of studies (e.g. Nieuwenhuys and Pécoud, 2007; Heller, 2014; Fiedler, 2020; Vammen et al., 2022). On the other hand, they have been described as unethical, as scholars question the effectiveness of migration campaigns, given the lack of credibility of Western actors among the target audience (Schans and Optekamp, 2016). The implementation of a knowingly ineffective policy leads to the interpretation that these campaigns are designed only to pretend to care about informing people in the so-called migrant-sending countries (Vammen and Kohl, 2023; Pécoud, 2023).

This study sets out from an impact testing perspective and wonders: are both of these normatively criticized moderators – anxiety and (lack of) credibility – needed for an effective migration information campaign? What is the impact on the perceived prevalence of irregular migration – regarding one's surroundings and the commonness of irregular migration for oneself? How is this relationship moderated via anxiety creation or via sender credibility? And do their effects cancel each other out or reinforce each other in a joint implementation? In this study I explore the single effect of each moderator, their effect when the other path is set to a low extreme, and their joint presence.

The empirical literature on emotions in politics suggests that anxiety can support the reception of information. Their evidence shows notable effects of campaign information via anxiety elicitation on issue awareness, norms, attitudes, and behavioral intentions (Brader, 2005; Marcus et al., 2011; Valentino and Neuner, 2017; Vasilopoulos et al., 2019). The second strain of interest here, the literature on political credibility, suggests that the impact of information is strongly influenced by the credibility of the source. This link is supported by a large body of rigorous empirical evidence in this direction (Druckman et al., 2010; James and Van Ryzin, 2017; Slothuus and De Vreese, 2010; Tobin and Raymundo, 2009). However, the two lines of theoretical paths are rarely studied in a combined way. The strong evidence for each of these moderators suggests an individual relevance to the issue of migration but leaves open the question of the extent to which both are necessary or even destructive.

Situating the application of information campaigns in a theoretical framework of information processing, the dual-process model identifies two moderators of persuasion (Marcus et al., 2000) and suggests that heightened anxiety and heightened source credibility follow distinct yet effective theoretical paths for information transmission. When individuals process information, anxiety enhances the impact of the message because it activates rational analytic information processing (the dual-process theory of affective intelligence), while sender credibility works as a peripheral cue in the superficial processing mode and fosters an information intake via increased motivation (Chaiken and Trope, 1999; Petty and Cacioppo, 1986).

Based on this theoretical framework, I develop expectations concerning the two moderators, anxiety and credibility, in four different combinations: the primary prevalence of anxiety (anxiety dominance), the dominance of credibility (credibility dominance), the presence of both moderators (joint-moderator dominance), and the absence of both moderators (no-moderator dominance). On the basis of the literature on dual processing frameworks, it is not possible to deduce which path would lead to a greater intake of information. Conservatively, I expect the effects of anxiety dominance and credibility dominance to be similar in magnitude. Given the two distinct routes of effectiveness from the theoretical model, I additionally expect that they do not mutually reinforce each other when both moderators are present. Further, I expect that the absence of anxiety-triggering as emotion in the audience and missing credibility in the information sender, i.e. no-moderator dominance, will have the smallest information transmission impact. Hence, I expect that one moderator could compensate for the other.

We test this theoretical framework by applying it to a real case that has not yet received much attention in migration politics and the field experimental testing literature (Tjaden et al., 2018): the policy of information campaigns on migration. To causally examine the single effect and the interacting effect of campaign information-with both moderating variables, anxiety and credibility, I conducted an experimental field study. Given the political relevance of this study, I have opted for a most realistic and average setting in all aspects of the experimental design and seek to understand the perceived prevalence of irregular migration as an outcome. By studying the perceived commonness of irregular migration, we generate initial insights into what is considered typical or acceptable behavior.

The design is based on a real information campaign by a European government and implemented by a bi-national NGO in Benin City, Nigeria, West Africa. Nigeria, and Benin City in particular, is a hotspot for irregular emigration, making it an ideal place from a European Union perspective to implement these campaigns (Morgenstern, 2024). The campaign takes place in secondary schools, reaching a study sample of (N) 2612 students. The two treatments are assigned randomly and independently of each other. To manipulate the treatment-variable emotion, I used a tool in which different emotional states (anxiety, calmness, no particular emotion) were triggered in the different treatment groups (Autobiographical Emotional Memory Task, AEMT). To manipulate the treatment-variable credibility, I used distinct types of campaign information senders that were likely to be assigned different levels of credibility by the target audience: a local NGO and foreign government (i.e., the most common migration information campaign implementer), and a control group with no particular information source (low credibility).

The findings are partly in line with our expectations. In the group in which the emotion anxiety was triggered, the ratings about commonness in one's surroundings do not differ significantly to those in the calmness/no emotion group. However, people in the anxiety treatment indicate irregular migration to be less common for themselves. Regarding pure credibility effects, the results show that higher sender credibility leads to higher perceived prevalence of irregular migration in one's surrounding but only marginally influences a lower commonality for oneself. Comparing the moderator effects in interdependence reveals no additional enhanced effect if the credibility of the sender is high, and anxiety is triggered in a campaign setting, supporting the theoretical framework of dual process theories.

These results may additionally be interpreted directly on their implications for migration politics, as they suggest that either an anxiety-creation in the campaign message or a credible sender may suffice given that we do not observe a ‘the more the better’-effect in this causal testing of both campaign components, and that the campaign objective may guide the moderator used – an issue that is particularly relevant for the discussion of migration information campaigns, as I will conclude. The findings of this study also lend credibility to the European campaign implementer, which challenges one of the assumptions of critical voices. However, it aligns with their emphasis on the role of credibility and suggests that it is therefore an ethical path to pursue further.

Besides a direct practical migration policy impact, my results of a rare causal testing of two campaign components may also give indications on the single and interacting effect of emotions and sender credibility for the influence of political information transmission more broadly. Both moderators are often used in the absence of one another or combined - intentionally or unintentionally - in settings such as election campaigns, corruption transparency initiatives, health information campaigns on HIV or Covid, independent of the state system or the north-south hemisphere (Grossman et al., 2020).

4. Theoretical framework

The communicated objectives of political information campaigns are to raise awareness, disseminate knowledge and change perceptions towards a certain topic by disseminating information among the audience (European Commission, 2015). An exact Bayesian update given new or corrected information is unlikely. However, assuming an effect direction is plausible. In line with Dunsch et al., (2019); Morgenstern (2024), I assume that information campaign information on migration increases the perceived prevalence of the topic in one’s surrounding and that negative information, such as the commonly communicated information about risks of irregular migration, decreases the commonness of that topic for oneself. In other words, I assume that perceived prevalence of irregular migration changes in two distinct directions, depending on the focus on one’s surrounding or oneself.

The general degree of influence exerted by information is dependent upon the extent to which it is processed. However, the way information is shared in campaigns makes it more challenging to process. Unlike other forms of information sharing, campaigns disseminate information to individuals who may not be interested or invested in the topic (Tjaden et al., 2018). While exceptions may exist, such as individuals with intrinsic prior interest in the subject matter, the majority of the audience is likely to be in an uninfluenced motivational state. The absence of an audience agency in the context of migration information campaigns suggests that the motivation to process the information is not enhanced *qua causa*.

The prevailing view in political psychology is that there are two fundamental modes of information processing (Petty and Cacioppo, 1986; Chaiken and Trope, 1999). In general, humans operate at low or general levels of motivation; uninfluenced motivational state; or more precisely, low levels of accurate information processing motivation (as any information-processing can be motivated, but in potentially unintended ways). This processing system is superficial, unconscious, and rapid, yet it results in less optimal information processing and a reduction in the individual’s capacity to exert influence. In this processing system, peripheral cues, such as aspects of the sender of the information, have been demonstrated to significantly influence the level of information processing (Lodge and Taber, 2013; Druckman et al., 2010). The default ‘intuitive’ system can be set aside to enable a more deliberative, informed judgement. This is supported by the findings of Marcus et al. (2000) and Marcus and MacKuen (1993), who have long held that increasing anxiety or fear is the one emotion that initiates this shift.

In essence, the processing of information is dependent on two distinct theoretical paths, which are moderated by a multitude of factors pertinent to the level of information being processed. This study concentrates on the most utilized aspects, namely the path of motivation through the generation of anxiety in the audience and the path of peripheral cues through a high credibility of the sender. As visualized in Fig. 1, the transmission of information is moderated by either the emotion anxiety or sender credibility.

In the following section, I present the theoretical application and expectations regarding the two moderators in their extreme states, both as single effects and as joint occurrences. These four extreme states are referred to as states of dominance. The term ‘dominance’ is employed here to reflect the theoretical dual-process model, in that dominance implies a proportional distribution of moderator states, but never the complete absence of one or the other. Table 1 gives an overview.

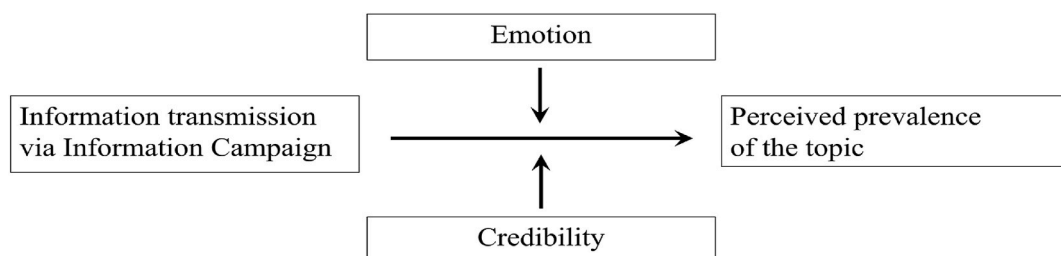


Fig. 1. Visualization of the theoretical model: Information transmission via the information campaign on the issue awareness and attitudes are moderated by emotion-trigger and/or credibility of the information sender. Note: Although the moderators are visualized as separate entities, they may be present jointly, or only one of them may be present dominantly, or both may be absent.

Table 1

Visualization of the interdependence of the two moderators in their extremes shaping information processing and subsequently the impact of the information.

		Emotion	
		Anxiety	Calmness
Credibility	High	<i>Joint-moderator Dominance</i>	<i>Credibility Dominance</i>
	Low	<i>Anxiety Dominance</i>	<i>No-moderator Dominance</i>

Note: Credibility dominance and anxiety dominance indicate the single effect of each moderator or the state in which each is dominant. The presence of both moderators is referred to as joint-moderator dominance and the absence of both as no-moderator dominance.

4.1. No-moderator dominance

In information campaigns, the target audience is not intrinsically motivated for high quality information processing due to their limited agency in receiving information. Thus, the ‘normal’ state (the default information processing mode) is dominant (Marcus et al., 2000). Unless a peripheral cue such as sender credibility occurs, I expect that the information conveyed in the information campaign has a rather small impact. Therefore, the absence of the two moderators, i.e., low credibility of the sender in an emotional state of calmness, should only result in a minor increase in the general perception of irregular migration prevalence and a small decrease in this perception for oneself.

4.2. Anxiety dominance

From a theoretical dual-process perspective, enhancing anxiety increases the motivation to process the information conveyed accurately and with high quality. Affective intelligence theory (AIT) supports this assumption (Marcus et al., 2000). AIT parallels dual-process theories, with a particular focus on emotions. One basic model dimension is the continuum from calm to anxious, defining superficial versus deliberate information processing (Brader and Marcus, 2013; MacKuen et al., 2010). Thus, anxiety increases processing motivation, which results in a higher impact of the information provision on individual perceptions on this topic. Further, a state of anxiety directs information selection towards the negative and reduces risk-affinity (Wagner and Morisi, 2019), both of which reduce the judgment component of the formation of perceptions. Empirical evidence on information campaigns of other topics reveals that anxiety increases attention, learning, reconsideration of added information, and innovative behavioral practices and lessens mobilization (Valentino et al., 2008; Albertson and Kushner Gadarian, 2015), experimental evidence on information and emotions shows that anxiety increases information processing even independent of priors on and complexity of the topic (Labliah et al., 2024; Clifford and Jerit, 2018) and an experimental evidence with regard to migrations reveals that irregular migration intentions decrease following migration information campaigns (Morgenstern, 2024).

4.3. Credibility dominance

Most authors define sender credibility as a classic peripheral cue because it enhances the impact of information in the state of low motivation, i.e., the general processing mode (Lodge and Taber, 2013; Briñol and Petty, 2009). These theoretical models posit that elevated sender credibility results in enhanced message impact, when the sender possesses a high credibility status. This has been shown in a multitude of empirical studies on information campaigns’ information (Hovland et al., 1953), for example, regarding election campaigns (Druckman et al., 2010; Klar, 2018) and other campaign-like information transmissions (Dewan et al., 2014), as well as for hypothetical migration information campaigns (Morgenstern, 2025). In migration literature, the ineffectiveness of information campaigns is often attributed to the sender’s lack of credibility (Nieuwenhuys and Pécoud, 2007).

4.4. Joint-moderator dominance

The proposed causal moderations for anxiety dominance and credibility dominance suggest that the impact of information provided in information campaigns is greater when either one of the moderators is present. It can be reasonably inferred that the simultaneous implementation of both moderators will result in a more pronounced or even a double effect. However, dual-process theories posit that the two processes follow distinct information processing paths, based on the two predominant system paths. For example, the theory posits that the deliberate processing path is engaged when processing motivation rises in response to anxiety. Once the deliberate processing mode is dominant, peripheral cues, which are significant in a setting of low motivation, become irrelevant. In that case, the level of sender credibility does not influence the outcome, as happens with anxiety dominance. Therefore, based on a dual process model, we would expect that these two moderators lead to two distinct paths of information processing, which would prevent a joint effect, i.e. an additional enhancement of information processing given the presence of both moderators.

However, it could also be the case that the two moderators interact before pushing for a certain information processing. This is for example the basic premise in affective polarization literature, suggesting that an emotional, or here affective state, influences how credible one perceives their counterpart. Albertson and Kushner Gadarian (2015) examine this interaction in depth. They argue that the state of anxiety fosters trust in a sender that is perceived as external to the threat but high in expertise. In the context of information

campaigns, anxiety would therefore increase the credibility of an already credible sender. Consequently, this theoretical approach rejects the notion of a simple additive summation of effects. The proposed outcome is analogous to that which would be expected following the credibility dominance path of dual process theory. Consequently, the falsification of either one of these approaches is challenging. In accordance with the aforementioned considerations, it is my expectation that the outcome for joint-moderator dominance will be equivalent to that of anxiety dominance or credibility dominance.

To summarize, I expect that the two moderators, anxiety and credibility, have similar effects but operate through different theoretical paths. My expectations were pre-registered prior to study implementation [<https://doi.org/10.17605/OSF.IO/XEQ4M>]. This brings us back to the motivation of this study: to find out whether triggering anxiety is necessary for the effectiveness of migration information campaigns or whether using a sender with a high credibility status could achieve a similar effect.

5. Setting

Nigeria is a key regional player in West Africa. In the literature, it is seen as a pioneer of new implementations in the region (Devillard et al., 2016). Whether this is due to its role model status, or its regional hegemonic power is debated (Ojaborotu and Adeleke, 2018). Nigeria is home to about half of West Africa's population. Like its neighboring countries, Nigeria is rich in natural resources and faces developmental challenges. Migration is part of West Africa's history, everyday life, and culture (Devillard et al., 2016). Most migration flows (about 80 percent in 2015) take place within West Africa.

A key issue is the increasing number of international migrants using irregular migration routes with destinations outside of West Africa (Carling, 2006). The "Mediterranean route" via Libya is the central route for West African irregular migration. Benin City, a large city in the south of Nigeria, has become the key national gateway providing all necessities for irregular migration (The World Bank Group, 2018). Due to a lack of official statistics on migration rates, particularly irregular migration rates, no precise characteristics of the typical irregular migrant are known. In-depth investigations indicate that typical irregular migrants are primarily young adults aged 15–24, with equal gender distribution (Carling, 2006).

From a European perspective, irregular immigration increased rapidly in 2015. Between 2015 and 2018, Nigerians were the largest West African group arriving by irregular means in Italy, the EU entry point on the "Mediterranean route" (UNHCR, 2016). Most of these migrants engaging in smuggling are young men. Although both genders use irregular migration paths, men are more often involved in smuggling and women in trafficking paths, and as the statistical probability of legal registration in the destination country is higher for smuggling than for trafficking, the European perspective often focuses on men in their irregular migration campaigns.

Similarly to irregular migrants from other West African countries, those with Nigerian citizenship do not qualify for asylum in Europe because their geographical origin is considered "safe". Potential migrants from countries in which the level of irregular immigration to Europe is high and the likelihood of being granted asylum in Europe is low are the target group for migration information campaigns from a European government perspective (UNHCR, 2016). Although no official numbers exist, indicators suggest that many migration information campaigns have been implemented (Caso and Carling, 2024; Beber and Scacco, 2022; European Commission, 2015; Morgenstern, 2025). Young adults are a key target group of these campaigns, which governments and NGOs launch mostly either through the mass media or via workshops in schools or town hall meetings (Tjaden et al., 2018; Schans and Optekamp, 2016).

I conducted this study in 2019 in secondary schools in Benin City, Nigeria. Concerning the selection of the target group and location, the study setting corresponds to the typical setting of migration information campaigns implemented by the EU. The study was implemented within an actual European migration information campaign that follows the common role distribution of migration

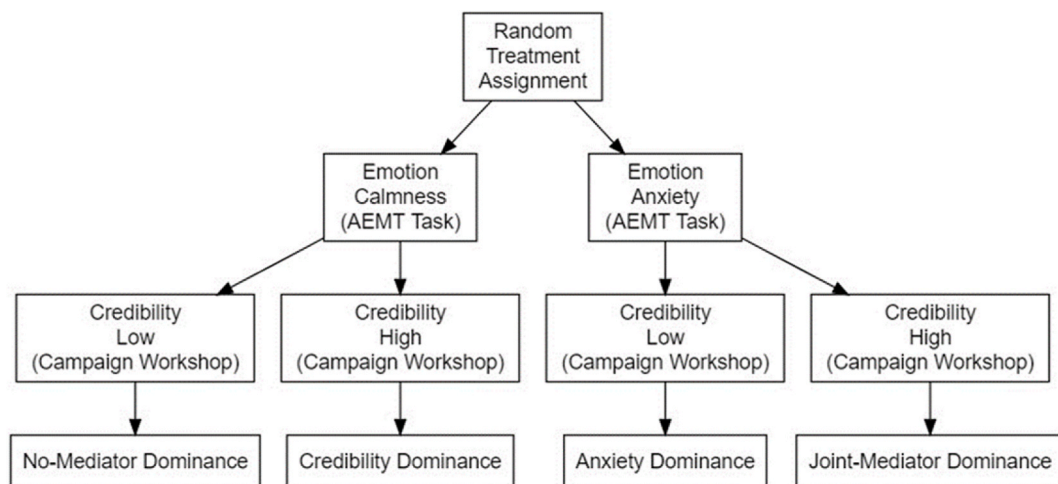


Fig. 2. Flowchart of the treatments in the research design. The chronological order of the flowchart is in line with the appearance in implementation; the final line resembles the theoretical extremes of the moderator dominance constructions.

information campaigns using workshops, with the government responsible for funding and the NGO for implementation. However, while the setting follows the most common design, I must emphasize that there is high variability between information campaigns. While I would categorize the present information campaign under study as an 'information campaign', an unknown number of deterrence campaigns hide under this umbrella of information campaigns. Therefore, there is some uncertainty when we say that the studied information campaign as such is also most common.

6. Research design

The purpose of this study is to investigate the role of two moderators of information transmission and processing in campaign settings. We study the single and interdependent effects of two moderators, anxiety and credibility, on how the provision of information about the risks of illegal migration changes the perceived prevalence of the topic among the target group. The direct manipulation of the moderators, randomly and independently of each other, allows for a strong identification strategy. From the theoretical framework each treatment consists of two treatment arms (emotion: anxiety vs calmness/no emotion; sender credibility: high vs low). Fig. 2 visualizes the design, focusing on the treatments and how these relate to the four states under study described in the theoretical model [No-moderator Dominance, Credibility Dominance, Anxiety Dominance, Joint-moderator Dominance]. Measurement wise the emotion treatment consists of three arms, as there is a third arm, an additional control group where emotion is not mentioned at all, and the credibility treatment has two treatment versions, NGO and government, contrasting the control group with no clear sender. However, I do see these variations as additional measures within the operationalization of the theoretical framework that tests the two extremes of two treatments.

The research design was pre-registered prior to data collection, including a power calculation (see Appendix 1.4 Planned Empirical Analysis (pre-registered; PAP) & Power Calculation), and the project received ethical approval from the university of the author.

I implemented the design in three secondary schools in Benin City, Nigeria. From top to bottom, Fig. 2 shows the chronological order of design implementation, which was identical in all three schools (see also Appendix 1.1.). The entire implementation process is concluded within the span of a single school day (school-day visualization see Appendix 1.1. research design). The students were initially assigned to one of three time slots on a random basis, thereby creating three distinct groups, which were designated as the credibility-treatment group. Secondly, the workshops for each group were conducted in consecutive order. In order to prevent any spillover effects, the teachers were present with the students in other buildings than where the workshops took place, both before and after the workshops. In each workshop, the students were presented with a baseline survey, which included emotion treatment manipulation as an AEMT task, specifically targeting emotion calmness and emotion anxiety. Subsequently, the students were presented with the information campaign event, during which the credibility treatment manipulation was performed [credibility low, credibility high]. Thirdly, the students were invited to participate in an endline survey. Lastly, the students were provided with a debriefing session comprising mind-freeing activities and refreshments, with the objective of ensuring their well-being.

Individual-level random assignment was ensured for the emotion treatment by randomly distributing the baseline surveys and for the credibility treatment by randomly assigning the students to workshop time slots.

6.1. Treatments: emotion and credibility

The information campaign was funded by a European government and implemented by a bi-national NGO with the declared aim to "re-educate about the risks and dangers of irregular migration." To this end, the NGO implemented workshops in secondary schools. In each workshop, students were first given a fact-focusing report accompanied by presentation slides; then two short films from self-made video footage of the NGO were shown. In a general campaign setting, the manipulation of anxiety and sender credibility would occur within the information campaign workshop. For research purposes only, we extracted the emotion treatment from the actual information workshop to disentangle the two moderators' single and interacting effects. This experimental design procedure allows for a causal interaction effect interpretation (Egami and Imai, 2018; Keele and Stevenson, 2021).

Emotion treatment. The AEMT is a technique to manipulate emotions. In laboratory settings, AEMTs are widely approved (Strack et al., 1985) and have recently been successfully applied in field studies in Zimbabwe (Young, 2019) and Colombia (Bogliacino et al., 2017). In these tasks, the participants describe a past situation in which they felt a particular emotion. The detailed re-telling of the emotionally charged situation returns the participants to that emotional state. In this study, the emotions of anxiety and calmness represent the two treatment groups, while in the control group, no emotion was triggered. The AEMT task was to list three things or situations that made one anxious or calm, and then provide a detailed description of why that was the case. The description was to be written so that the reader could feel what the subject felt in that situation. I decided for an AEMT unrelated to the topic of migration to conduct a clean and conservative test of the effect (Young, 2019) and to avoid influencing the information campaign effect by topic priming.

I recognize that there is likely to be variability in the intensity of treatment across participants in the AEMT, and potentially even within the treatment conditions themselves. While such variability does not necessarily present an issue, it does reduce statistical power, necessitating larger sample sizes to detect effects. However, this noise is more concerning if it is systematic rather than random. In this context, it could be argued that individuals who report more intense emotional experiences, or who are better able to recall emotionally significant memories, may be more likely to experience stronger anxiety responses. These individuals may be better at accessing and re-experiencing their emotions, which could introduce systematic differences between participants. The critical question for the treatment comparisons in the analyses, which is difficult to resolve definitively, is whether self-selection into higher-intensity responses during the AEMT is comparable to self-selection into higher perceived credibility in the alternative treatment. Intuitively,

these processes may be similar, as both involve individuals' capacity to access and engage with emotional or cognitive states. Therefore, while there is inherent variance and noise in the implementation of such treatments in the field, we argue that this does not necessarily threaten the validity of our comparative analysis, although it does impose power limitations. These limitations underscore the importance of corroborating field findings with laboratory studies, where emotional induction can be more tightly controlled.

To check whether the emotion treatment manipulation worked, the endline survey asked the students to indicate the emotion they felt most strongly during the campaign workshop from a list of six basic emotions (anger, disgust, fear, happiness, sadness, surprise) and a neutral category (Lerner and Keltner, 2001). A manipulation check was vital in this study because, on the one hand, the "safe and familiar" school environment might encourage students to allow themselves to feel the emotion, but on the other hand, it might prevent students from engaging deeply with negative emotions such as anxiety. The treatment manipulation check reveals a significant effect on the predominance of anxiety within the anxiety treatment group (see Appendix 1.3.4 and 2.5.1). In line with the most up-to-date political emotion research, not only one but multiple emotions are influenced, yet one is the dominant one (Marcus, 2023, Jäger, F. and S. Morgenstern, n.n.). From an experimentalist perspective we might speak of a bundle treatment with one dominant treatment character. The anxiety manipulation check reveals a rather small effect size; however, this is common for an AEMT that is not related to the topic (Strack et al., 1985). It is also important to note that I used the term 'fear' rather than 'anxiety' to measure self-reported emotions. From a conceptual point of view, the two concepts differ; fear is generally considered to be a stronger and more specific emotion (Lerner & Kalter, 2001), but due to limited survey space I had to compromise in the length of items. Therefore, I decided to follow Brader and Marcus (2013) and used the terms interchangeably for the manipulation measurement. This comes with the relevant limitation, that while we are clear about the research interest from a theoretical point of view, the fuzziness in measurement may introduce certain noise, i.e. variance in the measurement as some of the participants might not perceive the interchangeability as given. In the survey item, I only included the option 'fear' and not 'anxiety', as we believed that our audience would find the term 'fear' more relatable — i.e. closer to their everyday vocabulary.

Credibility treatment. It is only indirectly possible to manipulate the level of credibility an audience attaches to a particular sender, since credibility is an issue that is subjectively assigned by the participant. Studies use various tools to encourage variation in credibility, for example, via partisanship information (Druckman et al., 2010). Aiming to stick close to reality, I manipulated credibility by varying the sender of the information. I exploit the fact that usually in Nigeria the workshop presenter (information sender) introduces himself in detail at the beginning of the presentation. To avoid any deception, I only switched the focus of the self-presentation. All other aspects remained constant (e.g., general information and the person presenting), enabling a clear comparison of the effects. This was only possible due to the bi-nationality and split role of the head of the NGO who acted as presenter. In addition to the benefits of realistic manipulation, the moderator treatment within the actual information campaign setting is subject to a bundle treatment. This is an important factor to consider when assessing credibility effects.

For the information sender, I expected different levels of credibility based on a local NGO versus an international government from the qualitative and critical theory literature (Schans and Optekamp, 2016). The presenter either emphasised being born in the region and leading this local NGO, or the fact that he is living in Europe and conducting this workshop due to wish of the EU. Additionally, we added a control group with no clear communication of the source of information. For manipulation check we tested the internal validity by asking students to rate different attributes about the workshop presenter using McCroskey and Teven's (1999) well-established and tested credibility scale in the endline survey. In contrast to the expectations, the manipulation checks revealed that there were no significant differences in the levels of credibility attributed to the two sender types, the NGO and the governmental source, but a significantly lower level of credibility to the sender that does not clearly communicate their source. This is an interesting finding in itself. It contradicts one of the main ethical criticisms of migration information campaigns. However, one potential challenge for generalizing the credibility levels indicated by sender type is the school setting. The students could perceive all sender types as more credible because the school authorities have permitted them to speak in the protected setting of the school.

6.2. Outcome

Inspired by measurements of social norms I ask the participants about the commonness of irregular migration relating to two distinct environments. Given the one-item measure per environment I do not claim to measure social norms but expect to capture an indication of what is considered typical or acceptable behavior for each environment. To gain a general perspective on one's surroundings, the prevalence of the topic is operationalized by asking, "How common is irregular migration in your area?" Since the study took place in an area in which irregular migration is rather common, we might presume a linear link between higher indication and a more correct perception of the situation, but an interpretation based on the correctness of the commonality is out of the scope of this measure. Both measures are relative constructs and – given the irregularity of irregular migration-no exact numbers on irregular migration behavior exist.

For a perspective on the individual in contrast to their surroundings, we add a subjective evaluation component to the question (Eagly and Chaiken, 2007). I use wording commonly used in the studied area to refer to one's judgement of acceptability or typicality. The wording is "How common is it for you?" in a follow-up to the previous prevalence question. I am aware that the judgmental component, indicating the shift from general perceptions regarding the surroundings to individual perceptions implying a self-acceptability component, is highly indirect. I decided for this implicit measure and sacrificed precision in measurement for two reasons. First, I decided for the implicit wording due to the high expectation of potential socially desirable answering behavior; an issue I know from my previous research to be prevalent in Nigerian education contexts. Second, I wanted to use the language and wording that comes close to the understanding and usage of the surveyed population of teenagers and young adults in Benin City. To safeguard against misunderstanding, I checked both operationalizations qualitatively with Nigerian members from the same region of the NGO

who were in a similar age group to the respondents. The teenagers from the NGO understood both questions and inferred the expected broader concepts. The first measure is seen as the general perception of the prevalence of irregular migration, and the second measure on the acceptability or even potential possibility of it for oneself.

At this stage of the article, it is only natural to wonder why I have decided to focus on perceptions of irregular migration in one's surroundings instead of individual migration perceptions or personal risk assessments, given that these concepts are more commonly used to measure the factors that influence the decision to migrate. In this article, I focus on perceptions of irregular migration within one's community starting from the premise that migration behaviors are heavily influenced by social and environmental contexts. Perceptions of the prevalence of migration within one's community or social environment can shape individuals' beliefs about what is normal and the social standards, thereby influencing their attitudes and potential decisions. If adolescents and young adults believe that many of their neighbors or peers are considering or engaging in irregular migration, this may normalize such behaviors, reduce the perceived risks or barriers and increase the likelihood of their own migration intentions or actions. In other words, I take a 'social norms'-lens approach. My research - in similar research setting with a similar sample (Morgenstern, 2024, 2025) - indicates a high correlation between this measure and the operationalization of irregular migration intentions and I show with the analyses of my secondary variables of interest some parallels to other concepts such as dimensions of re-telling behavior. "

6.3. Study sample

For the campaign studied here, the NGO that carried out the campaign selected three secondary schools in Benin City. This non-random selection limits generalizability, but at the same time, it comes closer to a real setting of policy implementation. A comparison with representative data for young Nigerians from the Afrobarometer Wave 7 shows that the study sample is younger, slightly more female, slightly more educated, and has slightly stronger intentions to migrate than the overall Nigerian population aged 18 to 35. This speaks for the relevance of Benin City as a crucial case. Overall, 2657 students participated in the baseline survey and 2787 in the endline survey. After matching the panel waves (baseline and endline) by using individual student IDs, the sample size reduces to (N) 2612 students. The group sizes are similar across schools (862, 899, 851) and across both treatment groups (see Appendix 2.1).

The overall sample is slightly more female than male, has an average age of around 15 years, and is at the beginning of upper secondary school. For both moderator treatments, the treatment groups are reasonably balanced concerning the pre-registered covariates (see Appendix 2.2). In the credibility treatment groups, the ratio of female to male students varies. There are slightly more female students in the control group. To minimize potential survey order and question spillover effects, I additionally distributed two survey types per wave randomly: in Wave 1, the types are distinguished by the inclusion and exclusion of questions regarding attitudes, and in Wave 2, the order of question items in each topic is varied concerning the 'knowledge' items. Checks reveal a balanced covariate distribution (see Appendix 2.2). Overall, the baseline migration intentions are around medium, but the irregular migration intentions are relatively low. The students indicate a medium-to-high level of irregular migration prevalence in their surrounding (4.7 on a scale of 1–7). Their overall baseline perspectives for themselves are low to medium (3.8 on a scale of 1–7).

6.4. Ethical considerations

Ethical considerations are essential in experimental studies (Duflo and Banerjee, 2017) and are worthwhile to discuss at least briefly when describing the research design. The ethical considerations regarding potential ethical harm that I made prior to conducting the study, was approved by the university's institutional ethics committee. The participants are informed about the study and state that they have read and understood the information on the first page of the written questionnaire. In the event that they had problems understanding, they were assisted by the teachers, the NGO members or the research team. The study includes minors, but the ethics committee waived the need for consent by the parents.

I here briefly discuss two critical ethical aspects regarding the field study design at this point.

The first ethical aspect concerns the study sample. Young adults are the key target group of migration information campaigns, as is the case in this study. Adolescents are, however, a particularly vulnerable group and worthy of protection. To reduce the researcher interventionism, in this study the advantage of a clear control group that does not receive any information is dismissed. The students were asked for their consent to participate following a description of the study. In the study description, I informed the students about relevant aspects of the study and guarantee confidentiality, i.e. compliance with the high standards of the EU data protection law.

The second key ethical aspect concerns the emotion treatment. I used the AEMT due to its long tradition of use and its high acceptance in psychological research literature (Lerner and Keltner, 2001). Besides the long research tradition, the fact that AEMT tasks are used in therapy sessions to cope with traumatic experiences -called exposure therapy- (Abramowitz et al., 2019) reduced my concerns regarding potential harm. Furthermore, the students were debriefed after the workshop. Nevertheless, it is evident that, despite these safety networks, anxiety is intentionally triggered in (a part of) the research sample. After careful consideration, risk assessments, and evaluations of the potential benefits resulting from the study (e.g., applied method of triggering anxiety in campaigns)- I have decided to take this path.

7. Results

This study focuses on the change in perceived prevalence of irregular migration among young Nigerians due to migration information campaign information provision. I expect the level of information processing and hence the information's impact to be moderated by anxiety and/or sender credibility. Comparing both outcome measures among the audience before and after the

campaign implementation, independent of the treatment group allocation, supports the general expectation for the policy of migration information campaigns: Campaign information has an impact at the individual level, increasing the perceived prevalence of irregular migration in one's environment and decreasing the prevalence of irregular migration for oneself (see [Appendix 2.3](#)). The following sub-chapter compare between moderator treatments.

7.1. Independent moderator effects

Emotion moderator. Fig. 3 presents the effect of the anxiety treatment arm compared to the control arm. Due to a small amount of two-sided non-compliance, I report the intention-to-treat (ITT) effects in the first two estimates and the local average treatment effects (LATE) among compliers in the last two estimates. Each estimate is visualized as an ordinary least squares (OLS) point estimation, indicating uncertainty through a confidence interval whisker (95 percent; bold: 90 percent). The LATE is based on a two-stage least squares model, modeling the variation of the treatment assignment on treatment taking in the first stage and treatment taking on the outcome in the second. The respective uncertainty indications in the form of randomization inference (RI) measurements are reported in [Appendix 3.1.1](#).

From a theoretical standpoint, non-compliance has the potential to threaten the validity of causal inferences, if it is systematic. This is to say, in the event of subjects deviating from their assigned treatment in a systematic manner that is related to the outcome, there is the possibility of the introduction of bias. However, should non-compliance occur randomly, independent of individual preferences or traits, its primary effect would be increased noise, i.e. variance in the effect estimation, rather than bias. Drawing upon my empirical observations during the course of the field study implementation, I do not anticipate substantial non-compliance related to treatment assignment. The participants stuck to their own task in their survey without having conversations among each other's. So, they would not join a different group based on their preferences. I would say that the only instances of non-compliance occurred when multiple students were sharing a bench, as was the case for smaller (i.e. younger looking) boys and girls. Here, I suspect that those few students were more interested in writing their essays based on the same emotional tasks, regardless of the treatment they received. An estimation of systematic non-compliance supports this qualitative intuition, as it shows that non-complying students are more often younger. Therefore, consequences for the LATE estimation can be seen as meaning that the estimates apply with more confidence to older participants.

The two-stage least squares (2SLS) estimation method has been specifically designed to account for non-compliance by using the random assignment as an instrument for the actual treatment received. In summary, the 2SLS approach assists in the correction for any non-compliance by isolating the variation induced by random assignment, therefore the analytical outcome is also called 'local' Average Treatment Effect (LATE). The fact that the estimates for ITT and LATE are highly similar is another point that speaks in favour of a non-severe self-selection into non-compliance, meaning a low likelihood that this self-selection could have happened in relation to the treatment assignment. The measures for perceived prevalence of irregular migration in one's surrounding are highly insignificant and therefore not interpretable, in both analytical models (ITT or LATE). The estimates concerning the subjective commonness, indicate lower values in the anxiety treatment group in contrast to the calmness group. The estimates are smaller in size than anticipated. Considering the results of [Young \(2019\)](#), who used the same treatment manipulation method in a similar setting but on a

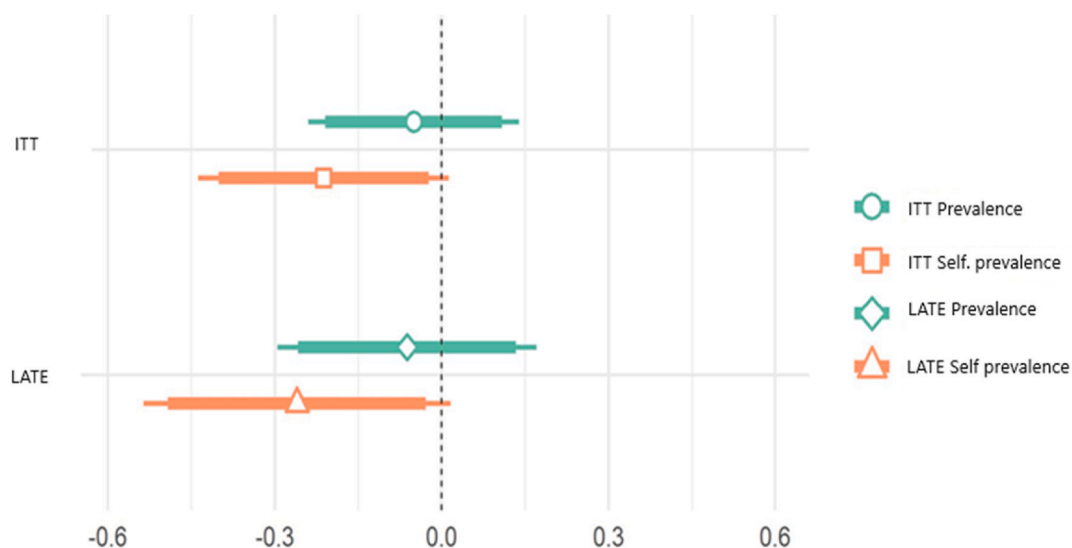


Fig. 3. Anxiety versus calmness on perceptions of the prevalence of irregular migration. The coefficient estimates show the effect of anxiety (1) to calmness/no emotion (0) on the perceived prevalence of irregular migration in general (ITT circle-shape, LATE diamond-shape), and for oneself (ITT square-shape, LATE triangle-shape). The ITT effect results from an OLS estimation. The LATE is based on a two-stage OLS regression. The dependent variables are not standardized but on the original 1–7 scale. The point estimate resembles the effect coefficient, the bold whisker the 90 per cent confidence interval and the thin whisker the 95 per cent confidence interval.

different topic, more substantial effects on the outcome were to be expected. The RI p-value supports the impression (general prevalence: 0.698, self prevalence: 0.968) by implying that most estimates are less usual. Although the estimated effects appear relatively modest in magnitude, they must be interpreted in relation to the treatment (De Mesquita and Tyson, 2020), which was a one-time information provision and the conservative paths that were taken in the treatment manipulations, such as the topic-independent treatment manipulation. I therefore interpret the effects as noteworthy. The ITT and LATE effect-estimates do not differ much, which speaks for a low impact of the partwise detected non-compliance. The effect estimates remain stable when including the PAP-registered covariates in the regression (Appendix 3.1.1).

Credibility moderator. Equivalent to Figs. 3 and 4 reveals whether the level of credibility affects the perceived prevalence of irregular migration in ones surrounding (circle-shape estimate) and the perceived commonness for oneself (square-shaped estimate). The graph presents the effect estimates for high versus low credibility treatments on the outcomes. The point estimate indicates the OLS computed mean difference, while the whisker represents the uncertainty of the estimation. The bold whisker defines a 90 percent confidence interval and the other a 95 percent confidence interval. In contrast to the AEMT, the workshop allocation performs better in preventing non-compliance. I assume full compliance, which implies that the ITT equals the LATE estimate.

The credibility moderator results (see Fig. 4) show a significant positive effect on the perceived prevalence of the topic in one's surrounding. While the measurement of the subjective outcome does not reveal significant results, it tends towards a negative effect, and one might dare to interpret it as a power effect instead of the absence of an effect given the closeness of cutting the zero-line. The RI values partly support the clarity of the estimates (general prevalence: 0.001, self prevalence: 0.866). The low RI value for the general prevalence measure indicates that the same estimate would be expected for many possible random assignments. Including covariates in the OLS estimation does not change the estimates significantly (see Appendix 3.2.1). The results support the hypothesis that the credibility of a sender influences the information processing of the campaign and hence the impact of the information on the perceived prevalence of the topic in one's surrounding but is only slightly indicating an effect tendency for the own indicated commonness.

7.2. Interdependent moderator effects: anxiety, credibility, joint-moderator, no-moderator dominance

The single effect estimations indicate that both moderators, emotion and credibility, have a relevant influence on the magnitude of the impact of the information in the campaign setting. In this section, we focus on the extremes of the interdependence of the two moderators, as indicated in Table 1 of the theory section, showing their controlled single effects in the absence of the other (anxiety and credibility dominance), their joint effect (joint-moderator dominance), and effect estimations in the absence of both moderators (no-moderator dominance). Fig. 5 presents the group mean values for the four cases for the outcome of perceived topic prevalence in general "Prevalence" (left) and for oneself "Self. Prev," (right). The colors of the lines resemble the credibility moderator: high credibility and low credibility. The x-axes indicate the treatment arms of the emotion moderator: anxiety and calmness. The y-axes indicate the average mean value for each of the four group variations. While the bold lines define the exact connection between the point estimates of all four groups, the surrounding ribbons indicate the uncertainty in the form of the standard error.

Fig. 5 (left) shows that the effect of the information campaign on (general) perceived prevalence of the topic is strongest when credibility is dominant. The joint effect in the presence of both moderators is only slightly smaller. At the same time, it is only slightly -but significantly-different from the mean when anxiety dominates. The effect on the (general) perceived prevalence of the topic is lowest in the absence of both moderators. The interaction analysis of the two variables reveals a significant negative estimate. With

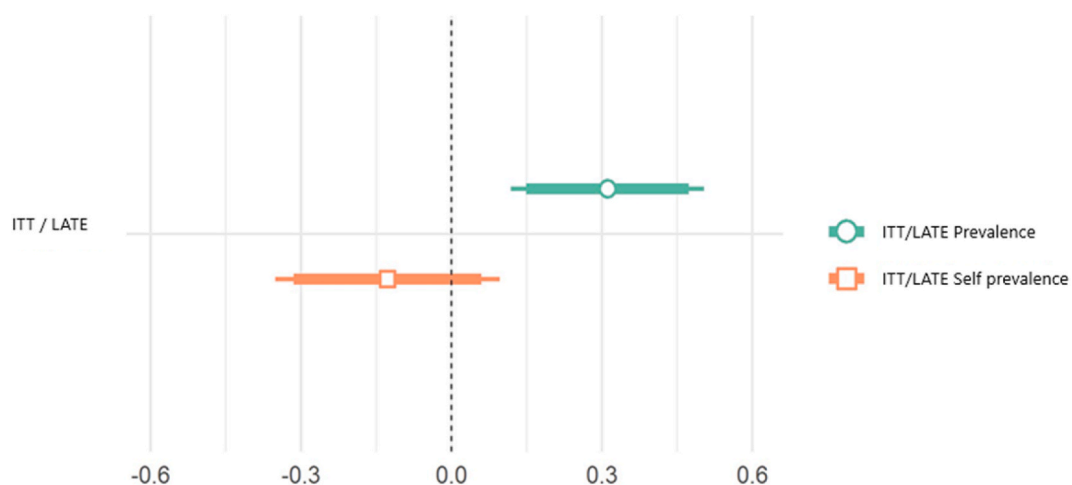


Fig. 4. Effect of high credibility versus low credibility on perceptions of the prevalence of irregular migration. The coefficient estimates show the effect of high credibility (1) to low credibility (0) on the perceived prevalence of irregular migration in general (circle-shape) and for oneself (square-shape). The ITT effect equals the LATE since full compliance is assumed. The calculation is based on an OLS regression. The dependent variables are not standardized but on the original 1–7 scale. The point estimate resembles the effect coefficient, the bold whisker the 90 percent confidence interval, and the thin whisker the 95 percent confidence interval.

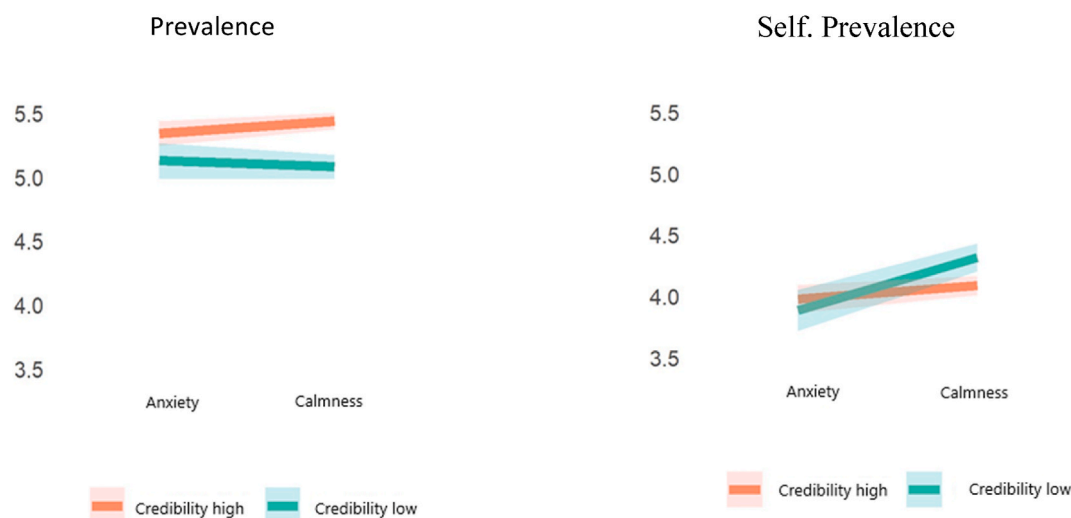


Fig. 5. Interaction between emotion and credibility. The interaction graph shows the average mean for each of the four subgroups identified in Table 1. The y-axis indicates the coefficient estimate based on the original survey scale (1–7) of each dependent variable. The x-axis indicates the emotion treatment and the colors the credibility treatment, with orange as high and turquoise as low credibility. The ribbon per line reveals the uncertainty in the form of the standard error per estimate. (For interpretation of the references to color in this figure legend, the reader is referred to the Web version of this article.)

regard to the raised idea of joint moderator implementation, the results indicate that a combination of the treatments does not induce an additional effect beyond the sum of the single effects.

With regard to the perceived topic relevance for oneself, (see Fig. 5 (right)), the effects are similar overall but reversed, since the moderators are expected to reinforce the reducing effect of the campaign information. Anxiety dominance has the strongest effect, although it is not significantly distinguishable from the effect for credibility dominance and joint-moderator dominance. Again, the smallest effect is perceived in the no-moderator dominance group. For the outcome variable of the perceived topic relevance for oneself, the interaction effect is not statistically significant.

The theoretical model of dual-process information processing suggests an effect of one moderator in the absence of the other since each is working through a different path. Here the interdependence analysis shows similar effects in the presence of only one of the moderators and their joint presence. Adding to the debate on mutually reinforcing or diminishing effects (Albertson and Kushner Gadarian, 2015), these results support the idea of no mutual maximization or minimization. As one could hypothesize an ordering effect in the present study, where the first treatment manipulation is emotion and the second is credibility, I conducted an additional survey experiment with a convenience sample of $N = 600$ mimicking the present study and randomly varying the order of each treatment assignment. I do not find significant effect differences based on whether emotion or credibility was manipulated first.

Returning to the question of ethicality of the two moderators, the initial starting point of the present study, I want to remind that the ethicality of the emotion moderator is criticized due to its anxiety triggering in a hierarchical setting, and the credibility moderator due to the presumed absence of credibility of Western implementers. With regard to the latter, the manipulation check of this study showed that the participants attribute similar levels of credibility to a local NGO and an international government as information sender. This unexpected finding still makes the high credibility group the more ethical one as assumed but implies so for two sender groups.

To sum up the results regarding the overarching question concerning the need for each of the moderators to enhance the information impact, the results of the present study are only partly supportive of the expectations. I do observe an overall impact of the information in the expected direction, positive for prevalence perceptions regarding one's surrounding and negative commonness indications for oneself. The outcomes for the moderators vary by outcome measure. The results thus imply that (i) anxiety affects individual perceptions (but less so the general perception of irregular migration prevalence) and (ii) credibility affects the general perception of the prevalence of the topic in one's surrounding (but only potentially the individual commonness attribution). Even a stronger manipulation of anxiety (e.g., within the campaign, topic-related) would probably not change these ratios substantially. The interdependence investigation reveals an absence of a mutually reinforcing effect, which speaks towards the theoretical framework of two distinct paths.

7.3. Additional analyses

We additionally investigated the treatment effects on aspects of re-telling behavior. This was pre-registered as well, but as the construct is primarily relevant from a policy maker perspective and the decision of potential upscale-ability of policy interventions, it's only a second order interest of this article. As capacities are limited, a multiplication of the information via re-telling would be beneficial. I measured re-telling behaviour based on the intention to talk about the topic of the intervention, the confidence to talk

about the intervention, and in a self-selected sub-sample in the second endline whether they did talk about the intervention in retrospective. The latter, as one would expect showed the expected results, as the self-selection of participation is probably highly correlated with related concepts to re-telling behavior. With regard to the other two measures I do see a positive effect of anxiety on the confidence to talk about the topic, but not on the intention to do so, while I see a positive and significant effect for both based on the credibility treatment.

8. Conclusion

In order to achieve a greater magnitude of information impact, I examine two moderators of information transmission on the perceived commonness and hence implied acceptability of irregular migration. By testing the outcome about one's surroundings I interpret a tentative indication of perceived social norms and by testing it with regard to oneself, the individual acceptability of the issue. I test the two most common moderators in information campaign settings: emotions and credibility. Both concepts have been extensively researched in isolation, but there is a scarcity of literature examining their interrelation. In the context of migration and border politics, both theoretical paths are the subject of substantial normative criticism with regard to the policy of migration information campaigns. This study contributes to the aforementioned literatures through the application of a causal moderation analysis with two treatments in a real-world setting, namely an actual information campaign on migration with a large-N sample of $N = 2612$ young Nigerians. To gain a deeper understanding of the theoretical paths via moderation of anxiety and credibility, I examine the influence of a single moderator, the effect of one moderator in the absence of the other, and the combined effect of both.

The results reveal that each moderator, when dominant, significantly increases the effect of the campaign information, however with different relevance per outcome measurement. General perceptions of irregular migration prevalence are primarily influenced by high sender credibility and can be defined as the initial objective in the dissemination of campaign information, and link to the communicated goal from a governmental standpoint in migration information campaigns (European Commission, 2015). However, I want to critically reflect on this outcome, as in my perspective it is possible that this result may lead to unintended consequences. Increased awareness of the prevalence of irregular migration in one's immediate surroundings may serve to reinforce the individuals' perception that such practices are a desirable aspect of life and therefore increase irregular migration behavior. I furthermore investigate a self-related measure to ascertain how the topic of irregular migration is perceived on a personal level. The results clearly indicate an effect of the anxiety moderator and only most slightly an intended effect for high credibility. In other words, self-related commonness of irregular migration decreases more if anxiety is prevalent but only potentially via the credibility path. When both moderators are simultaneously dominant, the two moderators do not reinforce or cancel each other out. The absence of an additional effect lends support to the theoretical argument of dual process theories, that two different theoretical paths are at work.

However, one needs to keep in mind that the results are from a bundle treatment of one information campaign in the field. A variety of campaigns implies a variety of information senders, campaign messages and emotional triggers. As rigorous research on migration information campaigns is still in its infancy, only a few comparisons are available to the present study (Caso and Carling, 2024; Morgenstern, 2024, 2025; Tjaden et al., 2018). Future research in different geographic settings, among different target groups, and with varying campaign implementers and changing message types will contribute to proving the robustness of the present results and making valid generalizable claims. Additionally, the study was conducted in a setting chosen by the NGO, and voluntary participation may indicate self-selection into the survey baseline, which could affect generalization. Another potential limitation is the manipulation of the emotion moderator anxiety. On the one hand, the fact that the manipulation takes place outside the campaign workshop makes it possible to disentangle the single effect of each moderator, and the avoidance of topic-related emotions prevents unintended priming effects but represents a conservative measurement (Young, 2019). On the other hand, this advantage in internal validity comes with a decrease in closeness to the reality of the setting. In campaigns, credibility and emotion moderators work simultaneously.

In addition to contributing to the existing literature on migration politics, the results offer new insights into the broader topic of political information provision. Although the impact of information provision is tested empirically in a variety of settings (Brader, 2008; Briñol and Petty, 2009), I am not aware of another study that manipulates both moderators. Being more sensitive of a potential ineffectiveness of a 'the more the better'-policy is not only crucial for the sake of morality but may also be a valid aim given that morality can shape campaign success as well (Jung, 2020).

In light of the evidence indicating that anxiety and source credibility are distinct (but not competing) theoretical paths through which individuals process information about politically salient issues, I believe it to be reasonable to propose that this should be regarded as a first step towards a research agenda about the testing of potentially interacting moderators in information transmission that are commonly applied under one of the two key assumptions: firstly (a), that information moderators have a jointly increased impact in a campaign setting; and secondly (b), that the effect of one moderator is not interfered with by the presence of the other.

Given that an enhanced joint impact (a) is not a given, a combined implementation is less justifiable. However, the present results do reveal distinct effects per outcome which is particularly interesting when reflecting on the ethicality of migration information campaigns. In the context of migration information campaigns, the funding side of Western governments generally communicates publicly that their aim is to raise awareness, to combat misinformation, or to increase knowledge (European Commission, 2015). This aim can be supported via high credibility as moderator and an emotion component of anxiety-triggering would hence be obsolete. However, other parties often suspect that information dissemination is only a superficially communicated goal, and an implied aim would be to reduce irregular migration to their countries. If the latter aim would be the case, the less ethical anxiety-triggering might lead to more effective information transmission effects, as the results indicated higher effects for the self-prevalence measure that is linked to concepts of own acceptability and irregular migration intentions. This empirical evidence in light of ethical considerations raises new questions regarding the purpose of migration information campaigns.

Additionally, the results of this study also deliver insights on the effectiveness in case of the absence of one or the other moderator (b). While the present results do reveal no additive effect of both moderators, they also show that information of information campaigns that trigger anxiety may have an impact, even with low sender credibility. This serves to illustrate the potential for those with less moral standing to exert influence. In the context of migration politics, this insight is particularly pertinent, given the potential for unscrupulous actors to reach their clients with false anxiety-inducing narratives, even when those actors are not perceived as credible. Moreover, it offers (worrisome) insight into other political contexts where the dissemination of information campaigning is a significant concern for those with low credibility.

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Declaration of competing interests

I have nothing to declare.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ssresearch.2025.103256>.

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