

# The Generation Mechanism, Situational Characteristics, and Positive Psychological Effects of Collective Effervescence

**Authors:** Duan Ying, Yin Keli, Yin Keli

**Date:** 2025-09-10T23:16:36+00:00

## Abstract

The concept of collective effervescence originates from Émile Durkheim's social theory and denotes an intense shared emotional experience triggered by collective gatherings. Current psychological research posits that collective effervescence is not merely an intense shared emotional experience, but also a process of perceived emotional synchronization, and more fundamentally, a sense of social connection and self-expansion that integrates feelings of connection and sacredness. Collective effervescence is widely present in traditional religious rituals and secular life; moreover, with the internet transcending the condition of "physical co-presence" for groups, a new form known as online collective effervescence has emerged. The generation mechanism of collective effervescence involves multidimensional factors encompassing psychological and behavioral dimensions, situational contexts, and individual traits. Current research evidence has rather consistently demonstrated that collective effervescence can not only bring about positive emotional experiences, enhance individuals' sense of belonging, and promote mental health, but also elevate group identity and cohesion, and strengthen group norms. Future research should elucidate its top-down emotional convergence mechanism, thoroughly investigate the generation mechanism of online collective effervescence, examine its potential negative effects and cultural-psychological impacts, and actively explore its application pathways.

## Full Text

### Preamble

**Collective Effervescence: Mechanisms of Generation, Situational Characteristics, and Positive Psychological Effects**

Yin Keli<sup>1\*</sup>

<sup>1</sup>Faculty of Education, Yunnan Normal University, Kunming 650500, China

## Abstract

The concept of collective effervescence originates from Durkheim's social theory, representing an intense shared emotional experience triggered by collective assemblies. Current psychological research suggests that collective effervescence is not merely a strong shared emotional experience, but also a process of perceived emotional synchronization, and a sense of social connection and self-expansion that combines feelings of affiliation with sacredness. Collective effervescence is widely present in both traditional religious rituals and secular life, and the internet has given rise to a new form—online collective effervescence—by transcending the condition of “physical co-presence.” The mechanisms underlying collective effervescence involve multidimensional factors including psychological and behavioral processes, contextual features, and individual traits. Current research consistently demonstrates that collective effervescence not only generates positive emotional experiences, enhances individuals' sense of belonging, and promotes mental health, but also strengthens group identity and cohesion while reinforcing group norms. Future research should elucidate its top-down mechanisms of emotional convergence, investigate the generative mechanisms of online collective effervescence, examine its potential negative impacts and cultural psychological effects, and actively explore its practical applications.

**Keywords:** collective effervescence, shared emotional experiences, perceived emotional synchrony, group identity, social connection

**Classification:** B849: C91

## Introduction

Whether experienced firsthand or observed in videos, we frequently encounter scenes where tens of thousands of people at a concert move in rhythm to the music, their faces radiant with joy and ecstasy, eyes meeting in unspoken connection as they share a profound collective emotion. Laughter, shouts, and songs merge into surging waves, individual boundaries gradually dissolve, and happiness and energy are transmitted among participants, creating deep resonance. This momentary connection represents not merely physical synchronization, but a shared elevation of emotion and spirit, as if time stands still and only collective effervescence remains.

Collective effervescence (CE) is an intense shared emotional experience triggered by collective assemblies and constitutes the core of such gatherings [1]. Throughout human evolutionary development, collective assemblies have carried cultural heritage and witnessed temporal transformations. As a significant social psychological phenomenon, collective effervescence is widely present across different cultures and historical periods, traceable to ancient religious rituals and similar collective activities [2][3]. It may occur in collective ceremonies such as

fire-walking rituals [4] and ritual celebrations [5], in collective events like large cultural gatherings [6] and major sporting events [7], or even in everyday situations such as watching movies [8]. As a psychological process that rapidly establishes social connections, collective effervescence effectively mitigates contemporary issues including intensifying individualism and pervasive loneliness [9][10]. It is not only an indispensable component of social life but also a vital force that promotes individual survival, happiness, and positive psychological outcomes [11][12][13].

In the early 20th century, sociologist Émile Durkheim first proposed the concept of “collective effervescence,” arguing that it represents the core of social solidarity, capable of enhancing group cohesion and shaping social norms [14]. However, psychology’s focus on individual subjective experience and internal psychological processes was deemed incapable of revealing the essence of social phenomena [15]. Although this theory profoundly influenced sociology, it was long neglected by psychology. It was not until the early 21st century that collective effervescence regained attention in collective emotion research [1] and demonstrated trends toward interdisciplinary investigation [16][17][18][19][20].

The rise of interdisciplinary research created opportunities for dialogue between psychology and Durkheim’s theory. Based on evidence that collective effervescence produces positive psychosocial effects, particularly special value for mental health [6][8][21], contemporary researchers have integrated it into the framework of social psychology, thereby achieving theoretical alignment and deepening with Durkheim’s original theory. Grounded in Durkheim’s theoretical perspective, this paper elaborates and analyzes how current psychological research expands the connotation of collective effervescence and explains its generative mechanisms, situational contexts, and positive psychological effects. Clarifying the development of collective effervescence in psychology holds dual value: theoretically, it deepens understanding of the interactive relationship between individual and group psychology; practically, it provides new perspectives for alleviating psychological crises and promoting human well-being.

### 1.1 The Connotation of Collective Effervescence

In his work *The Elementary Forms of Religious Life* (1912), Durkheim drew upon research by Baldwin Spencer and F.J. Gillen, using Australian Aboriginal tribes as subjects to analyze primitive religious rituals and propose the important social phenomenon of “collective effervescence” [14]. He argued that when people gather together, collective interaction and shared behavioral expressions of emotion trigger intense resonance, propelling individuals into an extremely excited state. In this state, individuals’ emotional expression and sensitivity to external stimuli are enhanced, while interactions and responses among individuals create cumulative and amplifying emotional effects: “Once they are together, a kind of electricity is generated from their closeness that quickly launches them into an extraordinary height of exaltation. Every mind is opened to external impressions; every emotion can be expressed without restraint. Each person

responds to the other and is responded to in turn. The initial impulse thus propagates and intensifies, like an avalanche growing stronger as it descends” (p. 297).

Psychological researchers have explored Durkheim’s conceptualization of collective effervescence through three progressive lenses: the intensification of shared emotional experience, the perception of emotional synchronization, and the fusion of connection with sacredness (as shown in Table 1 ).

**Table 1 The Connotation of Collective Effervescence**

Scholar (Year)	Definition
Hopkins et al., 2016	An intense positive emotional experience
Pizarro et al., 2022; Rimé & Páez, 2023	A process of perceived emotional synchronization
Páez et al., 2015; Włodarczyk et al., 2020	A psychological experience combining connection with sacredness
Gabriel et al., 2017, 2020	

From an emotional perspective, collective effervescence manifests as intense shared emotional experience. Rimé and Páez conceptualize collective effervescence as a high-intensity shared emotional state formed when individuals participating in collective activities experience mutual emotional activation and continuous amplification through shared emotional experiences [1]. Typically occurring in large-scale collective events, it represents a strong positive emotional experience [22]. This experience is triggered when individuals can express their collective identity and feel intimacy with other participants. Pizarro et al. emphasize that its core features include attentional, emotional, and behavioral convergence [12], which collectively enable participants to experience emotions transcending everyday life, thereby enhancing emotional resonance and consistency with others. This activation of shared emotional experience forms the foundation for collective effervescence’s profound impact at both individual and collective levels. Notably, collective effervescence is not a specific emotion [12]; it involves both basic emotions and more complex emotional experiences such as awe and collective pride [1]. Although mostly associated with positive emotional arousal, it may relate to negative emotional arousal in specific contexts. For instance, during sorrowful events (such as mourning rituals), deep grief interactions and resonance among individuals can generate collective effervescence identical to that produced at festive banquets [12][14]. Gabriel et al. emphasize that negative group behaviors can also produce collective effervescence, though less frequently [8][23], such as in disasters or terrorist attacks [24]. In other words, collective effervescence is independent of the type of emotion aroused; the key lies in emotional sharing.

From a cognitive perspective, collective effervescence is viewed as a process of perceived emotional synchronization. Páez et al. argue that collective effervescence formation is a multi-faceted social synchronization process encompassing cognition, emotion, and behavior [6]. This social synchronization includes group cognitive synchronization (such as shared understanding of group symbols), emotional synchrony, and movement synchronization, with perceived emotional synchrony being the core element. Researchers have operationalized collective effervescence as individuals' shared perception of mutual entrainment, coordination, and synchronization of emotional experiences in groups, and have developed scales for perceived emotional synchrony [6][25]. When individuals perceive emotional synchronization with others, this experience significantly enhances belongingness, identity, collective efficacy [6], and social connection [26].

From the perspective of social integration and self-expansion, collective effervescence manifests as a psychological experience combining connection with sacredness. When people experience both a sense of connection with others in the group and contact with something larger than themselves during collective activities, they experience collective effervescence [14]. Gabriel et al. conceptualize collective effervescence as individuals' experience of connection and sacredness, developing a collective effervescence scale based on this [8]. The process is also viewed as a psychological transformation where individuals transition from ordinary states into sacred, transcendent experiences—self-transcendent experiences [1]. This experience is not only closely related to belongingness but also reflects individuals' connection with larger social collectives [27][28].

## 1.2 Distinctions Between Collective Effervescence and Collective Emotion, Kama Muta, and Flow

Collective effervescence is not entirely equivalent to collective emotion. Von Scheve proposes that collective emotion involves emotional convergence among two or more individuals toward specific events or objects, emphasizing its attribute as a shared psychological state [29][30]. Goldenberg et al. focus on its dynamic nature, considering it a macro-level emotional dynamic pattern formed when multiple individuals react to the same situation [31]. Thonhauser, based on a collective analytical framework, suggests that collective emotion is a product of collective dynamic self-organizing systems, emphasizing that it is not a simple superposition of similar individual emotions but an emotional state jointly experienced by group members [32]. Chung et al. argue that collective emotion is an interpersonal emotional pattern formed through mutual influence and interaction among individuals within a group, with three core features: emotional consistency, solidarity, and shared consciousness [16]. From these conceptualizations, collective effervescence is indeed based on collective emotion, yet it does not encompass all emotions involved. While the collective emotion in collective effervescence is also a shared emotional state among group members, its intensity is higher and exhibits continuous amplification effects [1] along with feelings of connection and sacredness [8].

Take the common Chinese practice of square dancing as an example. Even bystanders or passersby who join the dance can perceive the group's shared positive emotion, which may be amplified when music and dance rhythms peak. However, this does not constitute collective effervescence. Collective effervescence-producing square dancing possesses ritualistic characteristics: participants have 准入条件 (admission criteria), know who participates and who is excluded, activities have fixed times, locations, personnel, and positioning arrangements, and the dance performance represents a collective achievement that shapes a "sacred world" for participants. If this "sacred world" is violated, dancers integrated with the scene perceive the offense as personal, generating resistance or even retaliation [33].

Pizarro et al. found that *kama muta* is closely related to collective effervescence [12]. *Kama muta*, derived from Sanskrit meaning "moved by love," refers to the emotional experience when communal sharing relationships (CSRs) suddenly intensify [34]. This intensification includes strengthening existing relationships, establishing new ones, or recalling relationships, such as love confessions, pet adoption, or individual or collective nostalgia [35]. Fiske et al. argue that whether consciously or not, experiencing sudden intensification of communal sharing relationships through observation, recall, thought, or imagination is a necessary prerequisite for *kama muta* [35]. As a unique shared emotion, *kama muta* typically contains positive affect, motivating individuals to actively seek such emotional experiences. It manifests with physiological reactions such as tearfulness and bodily chills, and can inspire motivation and moral commitment to strengthen, repair, and maintain relationships. It is often triggered in everyday accidental situations through acts of kindness and social support toward others (such as being kind to strangers), and can also be evoked in various cultural practices and rituals (such as weddings and award ceremonies) [34][36]. In contrast, Rimé and Páez argue that collective effervescence encompasses broader emotional connotations, including *kama muta* [1]. Notably, the communal sharing relationships in *kama muta* include not only human relationships but also relationships with deities, animals, the universe, and other non-human entities [35]. Thus, the relationships involved in collective effervescence constitute only part of those in *kama muta*. Therefore, while the two concepts overlap, they cannot substitute for one another.

An interesting connection exists between collective effervescence and flow, particularly group flow [6]. Group flow refers to members' shared flow experience during interdependent task execution [37], representing a team's peak state experience [38]. Interactive synchrony plays a key role in group flow formation [39]. Specifically, group flow depends not only on behavioral synchronization and coordination among members [40] but also on shared perception of group resources and efficacy [41]. Unlike collective effervescence, group flow is essentially a group optimal experience [1][42] focused on enhancing overall efficiency through collaboration rather than emotional resonance. Consequently, group flow occurs primarily in collaborative tasks such as team sports and artistic creation.

Table 2 summarizes the distinctions between collective effervescence and these three related concepts.

**Table 2 Comparison of Collective Effervescence with Related Concepts**

Concept	Core Features	Generative Context	Key References
Collective Effervescence	A shared emotional state involving basic and complex emotions, experiencing sacredness and connection	Religious, secular rituals, and everyday life scenarios	Rimé & Páez, 2023; Pizarro et al., 2022; Gabriel et al., 2017, 2020
Collective Emotion	A macro-level interpersonal emotional dynamic pattern with core features of emotional consistency, group solidarity, and shared consciousness	Various collective situations	von Scheve, 2011; Goldenberg et al., 2020; Thonhauser, 2022; Chung et al., 2023
Kama Muta	A specific shared emotion with positive affect, accompanied by physiological reactions like tearfulness and chills, motivating relationship strengthening	Everyday situations, various cultural practices and rituals (e.g., helping others, watching touching movies, interacting with animals, weddings)	Fiske et al., 2019; Fiske et al., 2025
Group Flow	Essentially a group optimal experience where emotion is not key; requires interactive synchrony, common goals, and high skill integration	Team sports, artistic creation, work collaboration	Csikszentmihályi, 1990; Hackert et al., 2022; Sawyer, 2006; van den Hout et al., 2018

## 2 The Occurrence Process and Its Elements

Durkheim's research found that tribal life exhibited a cyclical pattern alternating between "profane world" and "sacred world" —the alternation of everyday life and collective life [14]: "Sometimes people split up into small, independent groups scattered across their territories; each family fends for itself, hunting or fishing, doing whatever is necessary to obtain essential food. At other times, conversely, people gather at specific locations for assemblies lasting days or even months" (p. 296). Collective effervescence typically emerges during collective activities, distinguishing these two life patterns. Through participation in collective activities and shared behavioral expressions of common emotions, continuous interaction generates collective effervescence, enabling the transformation from profane to sacred world. However, Durkheim did not elaborate specifically on the generative process and its elements. Addressing this gap, social psychology researchers have constructed models of collective effervescence elements to reveal its underlying psychological components and conditions. Additionally, some studies have drawn upon social identity theory to explain associated cognitive elements, embodied cognition theory to analyze embodied imitation and behavioral synchronization, and emotion theory to systematically elaborate the emotional dynamics within collective effervescence.

### 2.1 Generative Elements and Conditions of Collective Effervescence

Pizarro et al. argue that Durkheim's theoretical perspective suggests that when people gather, individual co-presence and interaction trigger cognitive changes where individual consciousness is gradually replaced by group consciousness; members' behaviors then converge, generating collective emotion; this emotion continuously intensifies and merges through interaction, ultimately producing collective effervescence [12].

Building upon Durkheim's framework, Páez et al. constructed a six-element model of collective effervescence, proposing that its occurrence requires activating six elements: gathering at specific times and spaces; shared attention or goals that mutually reinforce each other as events unfold; consistent responses to group symbols; concentrated attention on goals; behavioral synchronization through group imitation or coordination; and synchronized behaviors promoting mutual coordination of emotional expression, aligning each participant's state with the group state [6]. These six elements work together to induce participants to experience and express similar emotional states, thereby generating collective effervescence. Empirical research has supported this model [43]. Subsequently, Włodarczyk et al. further condensed the model elements into three conditions: people gathering together and recognizing each other's presence, focusing attention on shared symbols, and intentional coordination or behavioral synchronization [25].

Additionally, Rimé and Páez introduced a stage-based analytical framework, supported by empirical evidence, summarizing collective effervescence genera-

tion as a process involving shared mental states (guided by symbolic signs), homogeneous expressions, group consciousness, emotional transmission, and mutual amplification until reaching a high-intensity state termed “effervescence” [1]. This represents an evolutionary process where participants’ emotional experience intensity continuously escalates within groups. By expanding the processual dimension of collective effervescence and highlighting the progressive characteristics of emotional experience intensity, this theory provides a more detailed dynamic elaboration of the generation process.

## 2.2 Dual Cognitive and Relational Transformations in Collective Effervescence Generation

Some scholars use social identity theory to explain collective effervescence. Social identity refers to individuals’ awareness of belonging to a social group and the resulting emotional experiences and value significance [44]. Turner subsequently proposed self-categorization theory (SCT) to extend social identity theory, arguing that when people integrate into a group sharing common characteristics or goals, they undergo self-categorization, internalizing group characteristics as their own traits and gradually completing the transition from individual to group identity [45]. This identity transformation forms the basis of group behavior. Based on this, Hopkins et al. argue that collective effervescence generation involves dual cognitive and relational transformations [22]. At the cognitive level, group members’ shared knowledge, experiences, and values form a common reference frame. When facing an event, they interpret its meaning based on this shared frame. At the relational level, common identity makes individuals aware that other group members are part of “us,” experiencing intimacy that enhances positive experiences and prosocial behavior [22][46]. During this process, group members may also promote behavioral coordination and construct group values and norms.

With the rise of individualism and the proliferation of computer-mediated communication, the forms of collective effervescence generation in secular society have changed. McCaffree and Shults’ theory of distributive effervescence argues that collective effervescence no longer emerges through traditional forms but through brief, intermittent interactions between individuals and diverse others in varied environments [47]. Individuals’ social identities become more flexible and diversified to adapt to changing social environments and interaction partners. They argue that increased heterogeneity among individuals and novelty of social environments facilitate collective effervescence, thereby promoting social cohesion. Distributive effervescence theory does not emphasize inter-individual relationships but focuses on collective effervescence generation in the transient, diverse, and flexible social identities of the digital intelligence era. It should be noted that existing research indicates shared subordinate relationships in group activities are not necessary conditions for collective effervescence [48], though it is stronger when relationships exist among individuals [4].

### 2.3 Embodied Imitation and Synchronized Actions in Collective Effervescence Generation

Gallese's embodied simulation theory posits that multiple mirror neuron matching systems coordinate individuals' experiential knowledge about self and others' bodies, generating resonant states when encountering others' intentional actions [49]. In social contexts, the body (such as facial or limb movements) can serve as contextual cues influencing individuals' emotional perception and behavioral patterns [50][51]. Therefore, convergence among individuals in collective effervescence may be influenced by embodied simulation.

For example, during collective effervescence moments in fire-walking rituals, audiences and fire-walkers exhibit convergent heart rate dynamics [4], suggesting that collective effervescence may involve audiences displaying shared arousal patterns with fire-walkers through embodied simulation. In traditional folk parades in some European regions, hundreds or thousands of residents wear historic military uniforms, singing traditional songs and drumming collectively, generating collective effervescence experiences [6]. Experimental research shows that when participants perform rhythmic motor tasks while observing another participant's actions, their movements spontaneously synchronize with the observed person, and this synchronization is modulated by environmental factors [52]. Thus, in social contexts, behavioral actions may become coordinated synchronously, intentionally or unintentionally. Kearney's case analysis found that joint action is a prerequisite for collective effervescence [48]. Related research also indicates that shared concentrated attention and behavioral synchronization are key factors in collective effervescence [25], with synchronized actions significantly promoting its generation [53][54][55]. Furthermore, Saraei et al., using wearable device monitoring technology, found that participants in collective rituals exhibit synchronization in both physical movement and physiological indicators, maintaining dynamic consistency with ritual leaders while forming interactive associations with neighboring individuals [56].

### 2.4 Emotional Changes in the Collective Effervescence Generation Process

Both Durkheim's classic theory and psychological models of collective effervescence emphasize that it is a special collective emotional state centered on emotional transmission and resonant amplification. Unlike individual emotions that quickly stabilize after repeated similar stimulation, collective emotions exhibit group-level characteristics including emotional convergence, intensified experience, and emotional cascades [31]. Specifically, in collective contexts, emotional interactions among individuals create resonance, causing emotional intensity to spiral upward and produce ripple-like diffusion effects. Experimental research found that in face-to-face interactions, collective emotions transmit from high-intensity to low-intensity members, promoting emotional convergence and continuously intensifying through cyclical accumulation [57]. This demonstrates that dynamic emotional changes among individuals are crucial for collective

effervescence formation. If individual emotions exist as static superpositions lacking interactive transmission and amplification, they would struggle to transcend individual emotional boundaries to form collective effervescence.

Current researchers have analyzed the internal mechanisms of emotional contagion, convergence, and continuous amplification in collective effervescence generation. Appraisal theory of emotion posits that emotions originate from actors' "interpretations" of situations, behaviors, or events that are relevant to the actors [58]. Von Scheve proposes that the cognitive basis of emotional arousal lies in the consistency and coordination between appraisal content and motivation; when appraisal content and motivation converge and results show homogeneity, similar or identical emotions emerge among individuals, facilitating collective effervescence formation [29]. Emotional contagion theory suggests that in daily life, people often intentionally or unintentionally imitate or repeat others' facial expressions, body movements, and other nonverbal representations, ultimately achieving emotional state convergence with others [59]. Xygalatas et al., through quasi-experimental design, found that emotional contagion occurs in collective rituals and may result from multiple mechanisms such as automatic imitation, shared attention, or cognitive processing of situational information [60]. Although these theories enhance understanding of emotional convergence and transmission, they cannot fully explain how individual emotions are amplified in social contexts.

Wang Zuojun et al.'s evaluation-confirmation-amplification model indicates two scenarios in emotional appraisal: individual emotions amplify when confirmed by others, otherwise not; emotional confirmation requires three conditions—consistent emotional states between individual and others, same emotional target, and certain cognitive motivation [61]. This model further elucidates the amplification effect of group-shared emotions, explaining the process of emotional interaction and amplification in collective effervescence. However, in real collective effervescence contexts, once emotions are triggered and amplified, they persist for some time. During this process, emotional contagion may spread through multi-directional interaction networks, causing individual emotional intensity to exhibit spiraling upward tendencies [62]. In this context, Liu Chunxiao et al. propose that in collective rituals, individuals can develop group identity through self-stereotyping and self-anchoring pathways, and the resulting shared identity drives transformation from individual self to relational or collective self, making individuals more psychologically inclined to accept group traits, enhancing emotional imitation effects, and expanding emotional transmission scope and duration [63].

## **2.5 Theoretical Element Structure Framework of Collective Effervescence**

The above review presents multiple theoretical perspectives in current psychology on collective effervescence. The six-element model and stage-based analytical framework systematically construct psychological mechanisms of cognitive

triggering, behavioral homogenization, emotional contagion, convergence, and amplification through dynamic interactive development, providing a holistic framework for understanding collective effervescence occurrence. Social identity theory explains the cognitive construction process of membership, common goals, and group consciousness during collective effervescence. Embodied simulation theory explains the mechanism of behavioral homogenization among individuals. Emotion appraisal theory, emotional contagion theory, and the evaluation-confirmation-amplification model deeply elaborate the emotional dynamic processes during collective effervescence generation. Based on the cognitive, behavioral, and emotional dimensions involved in these theories, this study summarizes the element framework of collective effervescence generation mechanisms in Figure 1 [Figure 1: see original paper].

### **Figure 1 Element Framework of Collective Effervescence Generation Mechanisms**

Notably, collective effervescence events generally exhibit periodic characteristics, yet current theoretical frameworks only explain single-event generation processes, focusing primarily on bottom-up formation mechanisms. Path dependency effects in periodic collective effervescence (derived from previous experiences) differ significantly from single-event generation mechanisms, requiring deeper theoretical construction and empirical examination. Moreover, existing theoretical research focuses on offline real-world contexts, while digital technology has fostered large-scale online interactive scenarios. Whether the dissolution of embodied co-presence (i.e., absence of face-to-face physical interaction) and enhanced digitally mediated interaction affect key elements of collective effervescence generation, and whether different formation mechanisms emerge, remain questions for exploration.

## **3 Situational Characteristics of Collective Effervescence**

### **3.1 Contextual Features**

First, collective effervescence typically occurs within specific temporal and spatial contexts, such as particular times (e.g., lunar New Year period for Spring Festival) and spaces (e.g., squares and streets for celebrations) for festival celebrations [64], venues and schedules for major sporting events [7], and locations and times for music festivals [65]. Temporally, collective effervescence can be either periodic or temporary. Periodic collective effervescence often has long histories, with activities repeated at fixed times, typified by collective rituals and festival celebrations. For example, the Magh Mela Hindu festival in northern India is an annual large-scale pilgrimage attracting millions to the Ganges River. Among participants, *kalpwasis*—who pursue the pilgrimage experience of “*ananda*” (sublime bliss) through shared ascetic practices—represent a manifestation of collective effervescence [22]. Temporary collective effervescence typically has sudden or temporary backgrounds and purposes, most prominently in protest demonstrations such as the 2017 London March for Science [66] and the

August 2020 demonstrations [13].

Spatially, collective effervescence can occur not only in offline real-world contexts but has also extended into virtual space under digitalization. In online contexts, people create collective participation atmospheres through real-time interactions like network comments and live-stream bullet chats. Naidu et al. propose that collective effervescence can occur even without others' physical presence, becoming a potential mechanism enabling individuals to feel socially connected while isolated [67]. Even when participants are physically separated, shared collective emotions drive social synchronization in relevant groups, stimulating another form of collective effervescence [24][66]. Garcia and Rimé verified collective effervescence theory online by analyzing digital traces of 62,114 Twitter users after the Paris terrorist attack [24]. Gabriel et al. also found individuals can develop senses of connection with absent others [8]. Mitchell et al.'s experimental research shows that online shared attention to others' physical or social pain can indirectly promote cohesion and interpersonal intimacy through collective effervescence [68]. Additionally, during the COVID-19 pandemic, community collective effervescence phenomena crossed 25 countries through networks [69].

### 3.2 Group Factors

Collective effervescence is typically accompanied by the presentation of group symbols. Rimé and Páez argue that flags, logos, slogans, or specific clothing in group contexts can guide people toward forming shared identity and group identification [1]. Zumeta et al. found that specific behaviors or gestures in demonstrations (such as raising hands to form triangles) and particular symbols (like purple identification marks) collectively embody and strengthen group values and identity [13].

Collective effervescence intensity is also influenced by group size and density. It typically appears in large-scale or intense collective activities, with sizes ranging from hundreds to millions [48][66], but can also emerge in small-scale everyday group activities, such as family sales gatherings of 6-19 people [70]. Experimental research shows collective effervescence is higher in large groups than small groups [53]. In large concerts, increased crowd density relates to more intense emotional responses in collective effervescence [71].

### 3.3 Individual Factors

Beyond the aforementioned factors, individual characteristics also influence collective effervescence, such as prior collective effervescence experience and personality traits. Research shows that higher frequency of religious ritual participation correlates with stronger collective effervescence experiences [17]. This experience relates not only to recent collective effervescence experiences with cumulative effects, but individuals with higher collective effervescence tendencies are more susceptible to frequency effects [21]. Additionally, collective effervescence

vescence positively correlates with agreeableness, extraversion, openness, and conscientiousness, but not with neuroticism [8][72]. In special activity contexts, collective effervescence may also relate to gender and age. For instance, in Women' s Day protests, younger individuals and women exhibit higher collective effervescence [13].

## 4 Positive Psychological Effects of Collective Effervescence

Whether in collective rituals or secular life, collective effervescence generation produces positive impacts [73]. At the individual psychological level, collective effervescence has multiple positive effects, primarily including positive emotional experiences, fulfilling belongingness needs, and promoting mental health. At the group psychological level, it also serves important functions, mainly manifested in promoting group identity, enhancing group cohesion, and constructing and strengthening group norms.

### 4.1 Individual Psychological Effects of Collective Effervescence

In collective effervescence states, individuals not only obtain positive emotional experiences within groups but also continue to feel positive emotional gains after leaving groups, including enhanced strength, confidence, and openness toward others [24]. Although shared, convergent, and coordinated emotional states may contain negative or ambivalent components, emotional synchrony typically amplifies emotional intensity, thereby stimulating “the joy of gathering together” [13]. When individuals participate in collective activities and experience collective effervescence, their minds often achieve calmness, experiencing transcendence and well-being. Unlike everyday life, collective effervescence provides a deep satisfaction and joy transcending the individual. In collective activities, participants support each other, and concentrated interaction further promotes positive collective emotions [74].

Haidt et al.' s “hive hypothesis” posits that humans occasionally need to “lose themselves” in larger social groups, a process enabling individuals to achieve higher levels of happiness and connection [27]. Research finds that successful collective gatherings typically enhance participants' positive emotions, self-esteem, and efficacy [6]. Additionally, collective effervescence can trigger positive self-transcendent emotional experiences [12][25].

Collective effervescence fulfills belongingness needs. Research indicates that humans evolved complex psychological mechanisms prompting them to actively seek social interaction to avoid isolation [75][76]. Belongingness satisfaction not only promotes social integration but also enhances well-being. When individuals feel connected with others in groups, they typically have better experiences [77]. Gabriel et al. found that collective effervescence not only satisfies relational needs but also significantly reduces loneliness while enhancing belongingness [8][21]. Like Harlow' s classic finding that infant monkeys could obtain psychological comfort from cloth surrogates [78], humans can also satisfy belongingness

through social surrogates or symbolic social connections [23]. Although these symbolic connections provide indirect belongingness satisfaction, their efficacy may have limitations compared to direct social interaction in collective effervescence. However, the rise of virtual social worlds enables individuals to partially extend collective effervescence experiences when real-world social interaction is insufficient, fulfilling belongingness through online interaction.

Collective effervescence significantly promotes mental health. According to Durkheim, collective effervescence can endow people with courage to face daily challenges, enhance adaptability, and thereby promote well-being and personal development [14]. Current empirical research confirms this view. Studies show collective effervescence significantly positively correlates with mental health [6] and enhances individuals' sense of life meaning [21]. Włodarczyk et al. also demonstrated that collective effervescence predicts higher levels of positive emotions and psychological well-being [25]. Active participation in collective activities is not only a natural social tendency but also has profound impacts on mental health and well-being [75][79]. In collective activities, shared cognitive and emotional experiences can significantly enhance individual well-being and hope [80]. In large-scale group activities such as pilgrimages, interaction with large groups significantly increases participants' well-being while alleviating unhealthy symptoms [81]. Additionally, nostalgia for collective effervescence events can rekindle these emotional experiences, thereby promoting mental health long-term or periodically [11].

Notably, collective effervescence is not confined to rare intense situations or rituals with serious purposes. Durkheim argued that even in everyday life, when individuals' associations with events or purposes are weak, universal collective effervescence can still emerge [14]. Research shows that watching sports events can trigger collective effervescence, thereby enhancing Chinese residents' well-being [82]. Gabriel et al. found that small everyday activities such as watching movies, participating in classroom discussions, or even activities of little interest can produce weak collective effervescence experiences [8]. Although weaker than large-scale events, these subtle experiences also have important psychological significance for health and happiness.

The above research reveals two distinct situational psychological effects: on one hand, intense group activities significantly enhance individual well-being through emotional connection and deep social interaction; on the other hand, everyday small activities gradually enhance individual mental health through cumulative effects. This dual-effect framework not only helps understand how collective events promote mental health but also provides important theoretical support for exploring the psychological significance of everyday social activities.

#### **4.2 Group Psychological Effects of Collective Effervescence**

Collective effervescence promotes group identity. According to social identity theory, during collective effervescence, group consciousness replaces individual

consciousness, characterized by reduced self-focus, enhanced social orientation, and self-other overlap. Rimé and Páez emphasize that collective effervescence enables individuals to escape everyday self-centered states and integrate into broader social connections [1]. Research shows that higher levels of collective effervescence correlate not only with stronger group identity but also enhance experiential openness [83]. Participating in collective emotional activities strengthens identification with other participants and consolidates broader social identity [84] and identity fusion [13]. Additionally, research finds that collective effervescence cultural practices can promote community consciousness [85].

Collective effervescence enhances group cohesion. Research shows collective rituals significantly enhance participants' identity fusion [54][86]. Włodarczyk et al., through two quasi-experimental and longitudinal studies, demonstrated that collective effervescence significantly enhances social cohesion, collective self-esteem, and positive collective beliefs [73]. Positive emotions mediate between collective effervescence and interpersonal cohesion, while self-transcendence mediates between collective effervescence and social cohesion and transcendent beliefs. Zabala et al.'s semi-longitudinal and quasi-experimental research showed that participating in collective effervescence activities effectively enhances social cohesion, rebuilds social trust, and strengthens personal and collective efficacy [43]. Fiske's relational models theory posits that group members experience intense social connection and community through jointly participating in rituals and celebrations [87]. This intense sense of social bonding and sharing not only constitutes the core of collective effervescence's cohesion-enhancing function but also alleviates negative impacts from painful and traumatic events [55][88][89].

Collective effervescence constructs and strengthens group norms. Research shows emotional synchrony is an important predictor of perceived social norms, with ritual participation indirectly influencing norm perception through emotional synchrony [55]. Durkheim noted that through rhythmic, orderly collective actions (such as rhythmic gestures and chants), people achieve emotional synchrony and group harmony, thereby coordinating values and beliefs commonly held by social members and facilitating group norm formation [25]. Research finds that collective rituals can not only enhance self-efficacy through collective effervescence but also motivate group members' moral commitment to shared values, group leaders, and social norms [6][12][90]. Castro-Abril et al.'s research on protests shows that collective effervescence generated in social movements can stimulate individuals' cognitive creativity and promote dynamic reconstruction of group values [91].

Although collective effervescence is a transient state, when embodied as symbols of group solidarity or sacred objects, it can produce more lasting effects [92]. This sense of sacredness or experience of contacting group values often constitutes a latent outcome of successful collective rituals [25]. In collective activities, participants obtain positive emotional feedback by practicing values and norms consistent with their social identity, thereby further strengthening group belongingness and value identification.

## 5 Summary and Prospects

In recent years, psychological research has increasingly focused on collective effervescence as a universal and important social psychological phenomenon. This paper has demonstrated the traditional and contemporary significance of collective effervescence from perspectives of occurrence processes and psychological elements, situational characteristics, and positive psychological effects. However, much remains unknown about collective effervescence, with numerous issues requiring resolution.

### 5.1 Examining Collective Effervescence Phenomena in Different Contexts

First, in-depth exploration of collective effervescence in everyday collective activities is needed. While Durkheim's research on primitive religious rituals emphasized sacred and serious-purpose collective ceremonies, it implicitly contained theoretical space for collective effervescence in everyday activities. He argued that secularized collective effervescence could detach from religious attributes and evolve into public revelry accessible to all: "Commemorative ceremonies gradually became collective effervescence in the ordinary sense, merely public merriment without any religious nature, which everyone could join without reservation" [14]. Current research confirms Durkheim's 论断 (assertion) about public revelry, with collective effervescence occurring in various secular collective contexts such as weddings [93], watching sports [94], festival tourism theaters in Zhaoxing Dong villages [95], concerts [96][97], and theatrical performances [98].

Contemporary social structures and lifestyles determine that psychological research on collective effervescence should focus on everyday collective activities. Research must guard against arbitrarily expanding the connotation and extension of collective effervescence and avoid using single elements to represent the phenomenon. As described in the opening vignette about ten-thousand-person concerts, the resulting collective effervescence represents a relatively brief process of continuous intensification and upsurge of collective emotion, with the generated feelings of connection and sacredness dissipating when the concert ends. How to understand such immediate, non-periodic collective effervescence remains unanswered by Durkheim. Based on existing theories and research discussed above, this paper proposes that studies on collective effervescence in everyday activities can be considered and designed within the element framework outlined in Figure 2 [Figure 2: see original paper].

### Figure 2 Psychological Model of Collective Effervescence in Everyday Collective Activities

Second, online collective effervescence phenomena and their mechanisms require investigation. As previously discussed, collective effervescence transcends the condition of "physical co-presence" and breaks through spatiotemporal limitations. In cross-temporal online collective effervescence, behavioral synchrony is

weakened due to lack of physical contact, while emotional synchrony must be achieved through language communication, visual symbols, and group-shared cultural memory. However, current research has limited understanding of its mechanisms, and differences between online and offline mechanisms remain unclear. As emphasized earlier, the continuous amplification of subjective emotional experience and its external expression constitutes the core mechanism of collective effervescence's psychological process [1]. Collective emotions can be generated and regulated through online interaction, with emotional expression playing a key role in virtual communities' sustainability and vitality [99]. Therefore, emotional expression and perception methods may constitute the primary difference between online and offline collective effervescence mechanisms. In contrast to offline contexts, online emotional expression relies on text and emoticons, while emotional perception depends more on individuals' subjective interpretation and evaluation of text. This indirectness and delay in interaction may weaken the depth and intensity of emotional synchrony. Research shows that compared to virtual emotional events, real-world events produce higher and more consistent physiological arousal among members [100], suggesting online collective effervescence may not fully substitute real interpersonal interaction in emotional depth and long-term psychological effects. However, online contexts break spatiotemporal limitations, offering longer emotional persistence and diffusion, providing new possibilities for widespread collective effervescence effects and alleviating individual loneliness. Moreover, explaining online collective effervescence mechanisms helps grasp characteristics of group psychological changes and deeply understand contemporary group phenomena (such as bullet chat revelry and cyber violence). Therefore, future research needs to examine online collective effervescence generation mechanisms and how its effects differ from offline collective effervescence.

## 5.2 Revealing Top-Down Psychological Mechanisms in Periodic Collective Effervescence

In collective effervescence, both "bottom-up" and "top-down" psychological mechanisms exist [63]. However, current theoretical and empirical research focuses primarily on bottom-up processes, with insufficient attention to top-down convergence pathways. Rimé and Páez propose that collective effervescence may induce emotional convergence through more complex top-down processes (such as language or symbolic signs) [1]. Some researchers argue that cultural customs facilitate large-scale collective emotion transmission and validate expected emotions [30]. Particularly in periodic collective effervescence events such as traditional festival celebrations, emotional memories related to collective emotional experiences and established group norms guide participants to adjust emotions during preparation stages, thus presenting top-down convergence. Additionally, nostalgia as an emotional experience can evoke psychological retrospection of shared experiences through collective memory, strengthening emotional experiences and enabling individuals to feel collective effervescence again [11][101]. Although some research has noted these phenomena, top-down psychological

mechanisms in collective effervescence remain unclear and require further investigation.

### 5.3 Expanding Multidimensional Psychological Effects of Collective Effervescence

Current empirical research has focused on positive aspects of collective effervescence, but less on other psychological effects such as negative impacts and cultural psychological effects. Future research should therefore examine negative effects. Durkheim (pp. 296-301) reminds us that collective effervescence has dual effects: it may bring positive experiences but can also lead to loss of self-constraint and trigger irrational behavior [14]. As Festinger et al. argued, group environments may cause loss of individual self-identity and induce antisocial behavior [102]. Zimbardo further emphasized that anonymity, lack of social constraints, and sensory overload in groups promote aggressive and antisocial behavior [103]. In related empirical research, collective emotions also show dual effects. For example, when victims of collective violence participate in mourning rituals, feelings of injustice and grief may intensify, yet social support and helping intentions increase [104]. Based on this, future research should, while deeply exploring positive effects, further analyze potential negative impacts and their triggering conditions, which is crucial for understanding group behavior patterns and effectively preventing negative group phenomena.

Furthermore, collective effervescence is closely connected to social culture, carrying key socio-psychological and cultural functions, yet current research on its cultural psychological effects remains insufficient. Collective effervescence activities are often accompanied by specific cultural symbols and signs that are continuously reinforced during group interaction processes, thereby deepening group members' identification with and belongingness to collective culture [13]. Taking Spring Festival as an example, red couplets carry New Year wishes, firecrackers symbolize evil-spirit expulsion, and on reunion dinner tables, fish symbolizing abundance and tangyuan representing reunion all contain profound cultural heritage. When family members gather, toasting and laughing together generates group emotional resonance and cultural identity, facilitating intergenerational transmission of excellent traditional Chinese culture and family culture. Moreover, with globalization and cross-cultural communication waves, collective effervescence may become a key medium for cultural exchange and integration (such as the Olympics and World Cup). Although collective effervescence may play important roles in cultural inheritance and exchange, questions remain regarding what cultural psychological effects it triggers, its generation pathways, and how these differ from mechanisms promoting mental health.

### 5.4 Exploring Application Paths for Collective Effervescence

Collective effervescence can effectively promote individual mental health and enhance individuals' ability to cope with life challenges in real life. Notably, collective effervescence generation is not limited to positive, celebratory scenes

but can also play emotional regulatory roles in special environments. For example, participating in memorial ceremonies or public mourning activities can enhance emotional connections among social members through shared anxiety, grief, and other intense emotions, thereby forming strong social cohesion [100][105]. Walby and Cole found that by organizing collective activities, prisoners in correctional facilities can experience collective effervescence through prosocial behavior, forming positive emotional feedback that alleviates psychological pressure and improves negative emotions [106]. This demonstrates that collective effervescence still holds potential and application value for promoting mental health in closed, high-pressure environments. Therefore, future research can explore more positive psychological practice directions for diverse groups from the perspective of collective effervescence.

---

*Corresponding Author: Yin Keli, E-mail: yayasles@163.com*

**Author Contribution Statement:**

Duan Ying: Literature collection, paper writing and revision

Yin Keli: Research question and conceptualization, paper revision

*Note: Figure translations are in progress. See original paper for figures.*

*Source: ChinaXiv –Machine translation. Verify with original.*