

The Groove Experience among Chinese Youth: A Comparative Study of Listening Psychology in Western and Mandarin Pop Music

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Abstract. This study focuses on the concept of groove in music psychology. It investigates differences in bodily groove engagement and emotional experiences among Chinese youth when they listen to Western pop music and Mandarin pop music. The results show that Western pop music has rhythmic, low-frequency and syncopation. It strongly leads to physical movement and positive emotions, embodying the construct of 'rhythm-driven overt participation'. Mandarin pop music focuses on melodic contour, lyrical narrative and vocal emotional expression. It causes static immersion and deep emotional resonance, manifesting as 'covert participation'. This study supports the 'Music Cultural Acquisition Theory'. It proves that musical preferences and emotional responses are greatly influenced by cultural socialization contexts. The study helps listeners understand the interactive mechanisms between groove perception and cultural backgrounds. It provides theoretical ideas for innovative approaches to combine rhythm and emotion in Mandarin pop music.

Keywords: groove, popular music, cross-cultural music psychology, cultural acquisition theory, emotional resonance

1. Introduction

Groove is a core and multidimensional concept in music psychology. It is usually defined as the impulsive urge and pleasurable experience of bodily movement. This movement is synchronized with rhythmic beats. Listeners have this experience when they engage with percussive music [1,2]. Existing research shows that groove formation is determined by musical parameters. These parameters include rhythmic structure, syncopation and tempo [3]. It is also closely related to the brain's reward system, motor cortex and sensorimotor integration mechanisms [4,5]. Consequently, groove is not just a rhythmic perceptual phenomenon. It is a deeply embodied and emotionally musical experience.

Existing research mostly comes from Western musical contexts and aesthetic traditions with limited attention to the influence of cultural differences on groove perception. Few number of cross-cultural studies have shown significant variations. These variations are among listeners from different cultural backgrounds. They appear in rhythmic preferences, rhythmic responses and emotional experiences. This suggests that the psychological mechanisms underlying groove may not

be universally consistent. They are greatly influenced by cultural contexts and aesthetic value systems.

In Mandarin pop music, rhythm mainly serves melodic and emotional expression. It does not dominate the musical structure [6]. Chinese audiences' listening habits tend to prioritize emotional resonance. They get this resonance through lyrical narratives and melodic lyricism, rather than get pleasure from bodily rhythmic engagement. This affectively oriented aesthetic model makes Mandarin music show relatively 'weak rhythmic engagement' on the groove dimension.

This study examines Chinese youth. It compares their rhythmic groove experiences when listening Western and Mandarin pop music. It aims to show how cultural factors influence the psychological perception and embodied response to groove. This research seeks to deepen the understanding of groove's cross-cultural characteristics. It also aims to provide new perspectives and empirical support for the development of culturally diverse theories in music psychology.

2. Literature review

2.1. Theories of groove and cross-cultural perspectives

Groove is a key concept in music psychology and cognitive musicology. Janata, Tomic, and Haberman first systematically proposed and defined it in psychological terms [1]. They described groove as a 'rhythmic pleasure that elicits the desire for bodily movement'. Specifically, it is the perceptual-sensorimotor coupling phenomenon. Listeners experience this when they engage with rhythmically driven music. This theoretical framework says that the essence of groove lies in the synchronization mechanism. This mechanism is between musical rhythm and the human motor system. It activates bidirectional interactions between the brain's reward system and motor cortex. This generates pleasure and physical responses [4,5].

In Western pop music contexts, groove is frequently regarded as a core defining characteristic. It enables music to 'move the body'. It relies on a delicate balance. This balance is between rhythmic stability, syncopation and rhythmic complexity [2]. Moderate rhythmic deviations heighten listeners' anticipatory tension and subsequent release, evoking pleasure and engagement [3]. Thus, groove is more than just rhythmic danceability. It is a psychological mechanism, which integrates emotional regulation, social interaction and bodily cognition [5,7]. In Western culture, groove is closely linked to genres such as Funk, Jazz, and R&B. These genres prioritize rhythm-driven structures, emphasizing the significance of accents and immediate bodily responses from listeners [2].

Recent cross-cultural research indicates that groove is not a universal psychological phenomenon. Its perception and experience show marked variations across cultural contexts. Witek et al. compared Ghanaian and American listeners' responses to syncopated rhythms. They found Western listeners were more easily triggered to move by moderately complex rhythms. Ghanaian listeners maintained stable movement synchronization even with highly complex rhythms. This shows that cultural rhythmic socialization and bodily practices influence sensitivity to and enjoyment of groove [8]. Egermann et al. compared emotional responses between Canadians and Congolese Pygmies. They found that music elicits universal psychophysiological effects. But the types of emotions and intensity of bodily reactions differ across cultural groups [9].

From a cultural psychology perspective, the experience of groove is closely linked to auditory enculturation. This enculturation happens within a specific cultural context [10,11]. Western music education and popular culture emphasize rhythmic movement and bodily expression. East Asian cultures place greater emphasis on melodic beauty and introspective emotional expression. So,

differences in groove perception not only reflect variations in rhythmic processing mechanisms. but also reflect differing cultural orientations towards the functional and aesthetic values of music.

2.2. The influence of music on psychological and emotional responses

Music is a cross-cultural medium of emotional expression. It can evoke complex psychological and physiological responses. Its impact goes beyond the perceptual level, which deeply influences emotional regulation and social bonding [12]. Research indicates that rhythm, melody, harmony and lyrical content together shape listeners' psychological experiences [11]. Among these, rhythm is considered a key determinant in triggering bodily movement and emotional arousal. When rhythmic structures combine complexity with predictability, listeners are more likely to experience an impulse to move and positive emotions. This experience forms the psychological foundation of the groove phenomenon [1].

From a neuropsychological perspective, the sense of rhythm in music is closely linked to pleasurable experiences. Grahn and Rowe discovered that during beat perception, both musicians and non-musicians show activation in the premotor cortex and striatum. This indicates that rhythm processing involves synchronized activity within the motor system [4]. Blood and Zatorre further noted that music-induced excitement correlates with dopamine release. It mirrors the reward mechanisms triggered by food or social interaction. This shows music's capacity to evoke intense pleasurable responses at the neural level [13].

Music's psychological effects are not universally consistent. They are greatly influenced by cultural socialization and aesthetics. Morrison and Demorest emphasize that listeners from different cultural backgrounds show variations in perceiving rhythmic, melodic and emotional cues [10]. For example, Western audiences tend to be more sensitive to strong beats, syncopation and rhythmic drive. East Asian listeners more frequently associate emotional experiences with lyrical imagery and melodic flow. These differences reveal the cultural dependency of musical affect processing, which suggest that the psychological mechanisms underpinning groove experiences are not uniform across cultural contexts.

In summary, groove embodies the synchronization mechanism between musical rhythm and bodily movement. It stimulates pleasure and motivational systems [1]. But its experience is shaped by cultural socialization and auditory enculturation [10]. Western cultures emphasize rhythm-driven, extroverted bodily expression. Groove symbolizes danceability and energy release here. East Asian cultures prioritize melodic lines and emotional depth. Listeners respond more through internal resonance and aesthetic immersion. Thus, musical psychological effects show both cross-cultural commonalities and cultural dependence. This establishes the theoretical foundation for this study's exploration of listening differences between Mandarin and Western pop music.

3. Methodology

This study employs a qualitative research approach, utilising a theoretical framework centred on musical cultural perception and bodily rhythmic experience . It explores the rhythmic groove responses and emotional experiences of Chinese youth when listening to Western and Mandarin pop music. Research was conducted through semi-structured, one-on-one in-depth interviews with participants. This methodology helps a deeper understanding of the subjective rhythmic sensations, emotional resonance, and cultural associations exhibited by young people within distinct cultural musical contexts. The interview outline centred on four core dimensions: musical listening

experience, bodily responses, emotional triggers, and cultural cognition, ensuring systematic and in-depth data collection.

To guarantee representativeness and comparability, six musical works were selected as stimulus materials. They are from both Western and Mandarin pop music. The three Western pop songs are: *Uptown Funk* (Bruno Mars), *Don't Start Now* (Dua Lipa), and *Deja Vu* (Naïka). The three Mandarin pop songs are: *Guang Nian Zhi Wai* (G.E.M.), *Yuan Yu Chou* (JJ Lin), and *Ping Fan Zhi Lu* (Pu Shu). The Western pop samples centered on rhythm. These music show typical characteristics of Funk and Disco styles. The Mandarin samples prioritize melodic lines, lyrical narratives and vocal emotional expression. This selection structure aims to cover a multi-dimensional musical experience. It ranges from 'rhythmic pleasure' to 'melodic empathy'. It helps compare listeners' bodily responses, emotional engagement and cultural meaning construction. These are within groove experiences across different cultural contexts.

3.1. Research participants

The research participants were young Chinese adults aged between 18 and 30. Sample selection was based on their active engagement with music in daily life and the richness of their musical experiences. All interviewees were required to have maintained consistent music listening habits. They should listen to music at least three times weekly over the preceding three months, and also needed to be familiar with at least three Western pop songs and three Mandarin pop songs. This ensured they had a perceptual foundation for cross-cultural rhythmic experiences. The sample included both music students and non-professional listeners. This ensures diversity of perspectives.

10 participants were interviewed, with a broadly balanced male-to-female ratio. All participants signed informed consent agreements; personal details were anonymised, and research content was used solely for academic analysis.

3.2. Data collection

Data collection employed semi-structured interviews, designed to explore participants' subjective experiences and cultural perceptions during music listening through flexible, open-ended dialogue. The interviews centred on four core themes: (1) listeners' bodily responses to music; (2) emotional experiences evoked by rhythm, melody, and lyrics; (3) personal musical preferences and cultural acquisition; (4) cross-cultural differences in musical perception. Each interview lasted approximately 20 to 30 minutes, conducted in a quiet environment and recorded with participant consent. All recordings were transcribed, preliminarily coded, and subsequently analysed through thematic induction.

The core analytical dimensions of this study focus on the physical, psychological and cultural variations. These are elicited by musical stimuli. It aims to reveal the manifest characteristics and formation mechanisms of groove experiences across cultural contexts. A background in music studies is not a primary comparative dimension. It serves as a supplementary variable to understand differences in auditory experiences and analytical depth.

3.3. Reliability and rigour

This study ensured the rigour and reliability of the research process. It used standardized data management and interview protocols. All interviews were conducted according to a uniform procedure. Participants granted authorization for recording to guarantee data integrity and accuracy.

Data management followed research ethics requirements. Materials were used solely for this study's purposes and maintained under strict confidentiality. Consistency and prudence were upheld throughout the analytical process. This enhances the study's credibility and academic rigour.

4. Research findings

4.1. Differences in audience physical responses to Western and Mandarin pop music

Existing groove research indicates that rhythm, syncopation, and low frequencies play a decisive role in bodily synchronisation [1,2]. In this study, most participants exhibited synchronised bodily movements such as tapping toes, nodding heads, and swaying shoulders when listening to Western pop songs like 'Uptown Funk', 'Don't Start Now', and 'déjà vu'. 'The moment the drumbeat kicks in, I can't sit still—my body just wants to sway' (Participant D, male, 27, master student, non-music major, 2025, November 6). This response aligns with the 'rhythm-induced bodily engagement' mechanism, wherein music activates the motor nervous system through rhythmic cues [14]. A participant with a music background offered a production-oriented explanation: 'The concise, crisp design of the hi-hat density naturally induces a rhythmic impulse' (Participant A, male, 25, master student, music major, 2025, November 6).

Western pop music structurally emphasizes rhythm, low frequencies and syncopation. It makes listeners more prone to bodily reactions that resist stillness. Music major participants analyzed the underlying logic of bodily rhythmicity. They used rhythmic structure and low-frequency analysis. Non-specialist participants described bodily impulses via imagined scenarios. This indicates that bodily responses are driven by both technical factors and cultural associations. Furthermore, participants' movements were mostly subtle (toe-tapping, slight body swaying, chest elevation). They were always accompanied by expressions of pleasure and smiling. This suggests that this rhythmic experience has an active participatory attribute. Clearly, the bodily energy activated by Western pop music is a chain reaction. Rhythm drives emotion, and emotion then propels bodily movement.

Mandarin songs such as *Yuan Yu Chou* and *Ping Fan Zhi Lu* elicited more restrained bodily responses. They mainly showed as states of calmness, focused gazing and altered breathing rhythms, instead of showing pronounced physical movements. "Emotions seem to rise gradually within me; I feel no urge to move, but rather become more absorbed in the lyrical content" (Participant B, female, 23, master student, non-music major, 2025, November 6). "Hearing *Ping Fan Zhi Lu* instantly transported me back to my junior high school years" (Participant C, female, 25, master student, non-music major, 2025, November 6). "When she hit that high note, I got goosebumps all over my body, yet felt no urge whatsoever to engage in rhythmic movement" (Participant E, male, 24, master student, music major, 2025, November 7).

Mandarin pop music immerses listeners in a state, which is characterized by "bodily stillness alongside emotional surging." Despite the absence of overt movement, subtle facial muscle reactions, altered breathing patterns and intense attentional focus all show that individuals are having profound emotional resonance. Music major participants more acutely noticed vocal progression, emotional peaks and resonant nuances. Non-music major participants frequently described their experiences as "reminiscent of past memory." Notably, this static immersion is not "non-participation." It is a sign of heightened emotional concentration and profound aesthetic engagement. It is a mechanism of "implicit participation." This phenomenon matches the tradition of Mandarin pop music emphasizing lyricism and narrative. Physical stillness becomes an external sign

of "deep emotional involvement." It reflects the preference for introspective, restrained and subtle emotional expression within the Chinese cultural context.

4.2. Differences in audience psychological experiences between Western and Mandarin pop music

Research indicates that groove can activate pleasure and motivational systems. It also enhances self-confidence and sensory arousal [15]. In interviews, Western pop songs mainly evoked relaxed, extroverted emotions: "This track sounds brilliant—perfect for looping while driving" (Participant F, female, 22, undergraduate, non-music major, 2025, November 5). "*Deja vu* unconsciously generates an upward motivational momentum" (Participant E, 24, master student, music major, 2025, November 6).

Such descriptions match the "rhythm-driven mood elevation" theory. "Thrill" and "confidence" are high-frequency descriptive terms. This indicates that rhythmic structures not only trigger physical energy release. They also guide positive self-perception and extroverted emotional expression. Some listeners highlighted low-frequency processing, rhythmic compression and dynamic control as key factors. These factors help mood elevation. This shows that the psychological impact of Western pop music goes beyond mere emotional activation. It has symbolic significance in enhancing social posture. Its auditory experience resonates with the high-energy psychological state of urban youth.

Emotional responses to Mandarin songs focused on tenderness, introspection, healing and emotional openness. Descriptions often involved themes of "feeling understood" "being emotionally touched" and "evoking memories." This indicates that the core experience lies in the resonance between self-narrative and empathy. Some listeners focused on tonal nuances and emotional processing techniques. They emphasized the emotional resonance from vocal softness and controlled delivery. Others prioritized the lyrical relevance to reality and vivid portrayal of daily life. From this perspective, the psychological engagement with Mandarin music emphasizes dialogue with the self and past experiences. It is an introverted musical affect mechanism. Melody, language and emotional memory collectively build the internal experience of Mandarin listeners.

4.3. The influence of cultural acquisition on audience preferences in pop music aesthetics

Besides physical and psychological differences, interviewees' accounts showed the profound impact of cultural acquisition. It influences aesthetic preferences and emotional responses. Some participants highlighted the formative role of Mandarin-language lyric culture. It happened within their developmental contexts: "Having listened to Mandarin-language songs since childhood, it has become an ingrained habit" (Participant G, female, 27, PhD student, non-music major, 2025, November 7). "English songs provide emotional support, whereas Mandarin-language songs feel more like narrating my own life experiences" (Participant E, male, 25, master student, music major, 2025, November 7). Interview findings show that musical preferences and emotional responses are greatly shaped by cultural influences during the formative years. Respondents consistently linked Mandarin pop music with adolescent emotions and daily companionship. It serves as a record of life experiences. Western pop music evoked associations with openness, social interaction and modern urban energy. This aligns with the "Music Identity Acquisition Theory" [10]—auditory culture is the foundation of young people's aesthetic cognition and emotional processing patterns. Furthermore, although music major participants had broader technical appreciation capabilities, their emotional response mechanisms were basically the same as non-music major participants. This indicates that

cultural-level emotional structures play a foundational role in aesthetic formation. So, musical engagement is not just an auditory act. It is a practical process of cultural identity construction.

4.4. Research summary

This chapter reveals significant differences between Western and Mandarin pop music. They differ in eliciting bodily responses, emotional experiences and cultural meaning construction. The findings are based on in-depth interviews and listening feedback analysis of 10 Chinese youths. Overall, Chinese youth showed a stronger, more proactive tendency toward bodily rhythmic engagement with Western pop music. Mandarin pop music caused a greater tendency for static, inward immersion and emotional projection. This phenomenon reflects the different influence of musical genre and cultural context on auditory perception and bodily participation mechanisms.

Physiologically, Western pop music has pronounced rhythmic pulsation, powerful low-frequency energy and intricate arrangements. It more easily leads to natural bodily movement and emotional activation. Mandarin songs focus on melodic contour, lyrical depth and vocal emotional expression. They guide listeners into states of emotional resonance and psychological immersion. This difference shows distinct pathways for embodied and affective musical experiences: Western pop music delivers kinetic pleasure through rhythm. Mandarin pop music cultivates emotional depth through resonance.

Psychologically, Western pop music more easily stimulates positive extroverted emotions. These include confidence, vitality and social engagement. It also brings self-expansive experiences. Mandarin pop music mainly evokes self-referential, introspective emotions. These include reminiscence and tenderness. It strengthens psychological solace. Chinese youth show dual tendencies in music consumption: the coexistence of extroverted and introverted needs. By day, they get motivation and energy from rhythm-driven music. By night, they alleviate stress and regulate emotions through lyrical compositions. Music thus acts as a psychological regulatory tool in young people's daily lives. It is not mere entertainment consumption.

Culturally, the findings support the "Music Cultural Acquisition Theory" [10]: musical preferences and emotional responses are deeply shaped by cultural input and developmental contexts. The Mandarin pop music sphere emphasizes narrative and emotional expression. Western pop culture prioritizes rhythmic drive and physical performance value. With the advancement of globalization and digital music dissemination, some young people show cross-culturally blended aesthetic preferences. They flexibly switch between Western rhythm-driven styles and Chinese emotional expression styles.

5. Conclusions

The findings of this study show that the psychological experience of groove has both cross-cultural universality and significant culturally dependent variations. Universality is shown by the fact that listeners, whether engaging with Western pop music or Mandarin pop music, consistently display shared psychological responses. These include the urge to move to music, feelings of pleasure and heightened attentional focus. This validates the core mechanism of existing groove theories, which is that rhythm induces pleasure and a propensity for movement [1]. However, distinct cultural music genres have marked differences in the externalized forms of this experience. Western pop music has dense rhythms, low-frequency energy and syncopation. It readily elicits overt bodily movements. It also brings extroverted emotions such as confidence and vitality. Mandarin pop music focuses on melodic contour, lyrical content and vocal emotional expression. It guides listeners into a state of

"implicit participation." This state is characterized by static immersion, emotional resonance and memory activation. This shows that the mechanisms by which rhythm and melody stimulate bodily and emotional responses differ greatly across cultural contexts.

Existing groove theories have foundational applicability in explaining the listening experiences of Mandarin pop music, which effectively reveal rhythm-induced pleasure and psychological arousal mechanisms. However, these theories have two key limitations: firstly, theoretical frameworks mainly emphasize movement tendencies and bodily coupling, and it overlook non-kinetic engagement mechanisms such as static resonance and emotional immersion. Secondly, most studies are based on Western pop music traditions, which fail to adequately consider the central role of lyrical meaning and vocal emotional expression in Mandarin pop music, and it nor sufficiently address the phenomenon of "emotional resonance replacing rhythm as the primary psychological trigger."

In summary, this study helps deepen people's understanding of the relationship between groove perception and cultural context. It suggests that future theoretical development should further expand cultural dimensions. Researchers should examine the interactive mechanisms between rhythm and emotion across different musical traditions. Practically, the findings have positive implications, which support the innovative integration of rhythmic design and emotional expression in Mandarin pop music, and it also help promote the development of pop music. This development direction combines rhythmic aesthetics with emotional depth.

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