Abstract:
Within the framework of trend structure theory, this paper attempts to explain the phenomenon of force transmission between macroscopic objects. Using the example of a golf ball being struck by a club, the author proposes that "force" does not originate from abstract vectors or fields, but rather from a response mechanism generated by structures striving to maintain their own trend equilibrium. This mechanism is not a unified response from the whole object but a differentiated dynamic reaction of microscopic units under the coordination of the trend structure. This perspective offers a novel structural viewpoint for future studies in mechanics.

Part I: Structural Existence and Trend Coordination

Let us begin with a simple question: Why is a golf ball able to “occupy” space?

If an object is composed of countless quanta (or microscopic units), why does it not disintegrate or collapse like a pile of sand? The key lies in the formation of a stable and coordinated "trend structure" within it, which enables it to exist in space in a balanced manner.

For example, a golf ball consists of atoms and molecules arranged in a structured manner. The distribution of its electron clouds forms a highly stable pattern. This trend allows the object to maintain its shape and structure as a whole under external forces, preventing it from being easily destroyed.

Part II: Force Is Not a Whole-Body Reaction, but a Coordinated Structural Response

When a golf ball is struck by a club, it begins to spin not because the "whole" is instantly given a rotational momentum, but because—

The atoms and molecules that compose the golf ball exhibit micro-structural differences (even if made from the same material, the number of protons and neutrons in atomic nuclei may vary slightly, and the shapes of electron clouds differ).

Upon impact, each atomic unit responds to the external disturbance under the coordination of the trend structure. Due to differences in response speed, direction, and structural relationships, the overall reaction becomes non-uniform.

This non-uniform response manifests macroscopically as the ball's “spin,” “rebound,” or “deflection.”

Part III: Force Manifested Through Structural Resistance

In trend structure theory, every object exists in order to maintain its own structural stability.

When a stable structure (such as a golf ball) is compressed by an external structure (such as a golf club), it strives to maintain its original state. If the force is too great, it may disintegrate or fracture. But under normal conditions, it will exhibit tendencies such as “bouncing away,” “spinning,” or “moving.”

This is not because a “field of force” imposes these behaviors, but because the object is reacting in order to preserve its own structure.

From this perspective, "force" is not an entity or independently existing field, but rather a coordinated phenomenon arising from the mutual influence of trend structures striving to maintain themselves.

Part IV: The Potential for a Unified Explanation of Macroscopic Behavior via Trend Response

While we cannot claim that trend structure theory “unifies all forces,” it does offer a promising structural explanatory framework.

It is emphasized here:

> “The trend-structure-based explanation presented in this paper is merely a structural perspective on macroscopic mechanical phenomena. Whether this theory holds true unifying potential is not for the author to declare, but should instead be verified through future experimental evidence, third-party research, and interdisciplinary applications.”

The greatest current challenge of trend structure theory lies in its **high threshold for intuitive understanding**. While the concepts possess a high degree of unification, they are not easily grasped intuitively. However, once understood, the theory demonstrates strong potential for application and inference.

Conclusion:
Trend structure theory does not aim to redefine "force," but rather to offer a new explanatory perspective based on structural self-maintenance. While it may not immediately replace existing theoretical systems, it offers a possible path toward a more fundamental understanding of the phenomenon of force.

If the theory continues to demonstrate consistency and predictive power across various phenomena, it may gradually be accepted as a new structural language of mechanics.

Keywords: trend structure, force transmission, structural stability mechanism, non-uniform response, golf ball, microstructural mechanics