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The impact of multiple information on coupled awareness-epidemic dynamics in multiplex networks

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**HIGHLIGHTS**

- We study the spread of awareness and epidemic considering individual heterogeneity.
- Precaution levels are heterogeneous and vary with contact and epidemic information.
- Epidemic threshold is affected by contact information but not epidemic information.
- Local and global epidemic information have the same impact on epidemic spreading.
- Infected individuals' altruistic behaviors can suppress an epidemic effectively.

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