# Rain Culture: Rain Induced Behavioral Changes

of People Moving on the Streets in Central Ho Chi Minh City

Tuan Anh Luu<sup>+</sup> (Vietnam)

#### Abstract

Rain is a natural phenomenon that has existed for a long time in people's lives, greatly affecting the lifestyle of people and the appearance of Ho Chi Minh City. All the methods, concepts, behaviors and relationships of people in Ho Chi Minh City in their interaction with rain form the whole of the so-called rain induced behavioral culture. Studying the rain induced behavioral changes of people moving on the streets in central Ho Chi Minh City is a meaningful case study to identify the overall picture of behavioral culture with rain in particular, with weather in general, of people in Ho Chi Minh City. This paper suggests the direction of extensive or in-depth research on the relationship between people and nature in Ho Chi Minh City from cultural view as one of the approaches that are not alien to people's lives but rather new to social science research.

Keywords: Urban Culture, Behavioral Culture, Vietnamese Culture, Rain Culture, Vietnam, Ho Chi Minh City, Weather

+ Tuan Anh Luu. Lecture, Ho Chi Minh City University of Food Industry, Vietnam. email: luutuananh686@gmail.com.

### Introduction

Ho Chi Minh City (HCMC) is one of the most developed cities of Vietnam, with people coming to live and work increasingly crowded. Accordingly, infrastructures such as roads are focused on upgrading and expanding, and more architectural works have also sprouted, contributing to determining the behavioral culture with people's moving here. People in a certain area in HCMC such as the central city will have living habits that are affected and regulated by the surrounding environment, even those who just pass through that area have more or less manifestations (whether reluctantly or voluntarily follow) of the lifestyle in that area in a pattern of imitation to be similar, to adapt.

Rain is a natural phenomenon that is indisputable in terms of its duration and degree of attachment to humans, as well as in all other places of the world, it affects and has a great impact on behavioral culture with the surrounding environment of people in HCMC. In the view that all manifestations in life are worth studying if they last long enough and have a certain influence on people's lives, this paper initially refers to rain induced behavioral culture of people moving on streets in central of HCMC (irrespective of whether the main resident, the resident or who just come to work) through aspects such as wearing raincoats, choosing places to shelter from the rain, dealing with constraints caused by rain and the role of stakeholders in addressing them. The content of the items developed in this paper shows that in the way people moving on the streets of central HCMC deal with rain, there are both effects of the civilizational factors of the times but also the influence of traditional agricultural culture. The development of infrastructure and urban population density brings people many good utilities, but also brings some consequences that hinder people's lives if they are not well developed. Traffic jams, flooding, traffic collisions, accidents caused by potholes on the road, being splashed with dirty rainwater from the road surface... are unfortunate inconveniences caused to people moving on the streets in central HCMC when it rains. Facing these troubles, people moving on the streets have chosen to behave flexibly to adapt to the situation, sometimes behave respectfully and softly.

The observation method and the transect walk method are mainly applied in the paper to clarify aspects of the rain induced behavioral culture of people moving on the streets in central HCMC in a specific and objective way. We observed the ways and manifestations of the behavior in the rain and with the surrounding environment in rain of people moving on the streets in central HCMC, focusing on the large, crowded roads in busy districts such as District 1, District 10, District 3, District 7, District 5, Binh Thanh District, Go Vap District, Phu Nhuan District. Many of the points raised in this paper have a reliable basis because they are our actual observations in the process of living in central HCMC from 2002 up to now. During this time, we experienced moving in the rain, directly saw, contacted and talked with many people about their concept and behavior with rain when moving on the road in central HCMC. To increase the reliability of the research content, we conducted a survey of 30 people by questionnaire. The surveyed subjects were randomly selected, the common point is that they have been moving on the streets in central HCMC (90% of the surveyed people have a regular level of move-

ment on the road, the remaining 10% have a level of movement less often but there is no one who has never been on the road). The age of 30 people surveyed is between 19 and 50 years old, having lived in Ho Chi Minh City from 1 year to 40 years. Their current occupations are very diverse, in which, 80% of people regularly use 2-wheeled vehicles (such as motorbike, bicycle), 6.7% people regularly use vehicles of 4 or more wheels (such as car, taxi, bus) and 13.3% of people regularly use both 2-wheelers and 4-wheelers. Given the age, length of time living in HCMC and occupation of the surveyed subjects, it is possible to ensure that they have enough cognitive ability to answer and properly explain their behaviors with the rain while moving on the road in central HCMC. At the same time, it also helps our research to have a more comprehensive and objective view through the statistical results from the survey.

## The Rain Induced Behavioral Culture of People Moving on the Streets in Central HCMC and the Use of Raincoats

It is easy to see that "in urban life, citizens do not stay in one place. They move daily to go to work, in order to adapt labor for operational needs" (Tran Ngoc Khanh, 2018:427). In the process of moving that inevitably forms human's behavioral culture with surrounding natural and social environment. In each country, each region with different modes of movement will have different behavioral culture characteristics. In urban districts in HCMC, the traffic mainly by motorbikes of people moving on streets determines a very specific method of behavior with rain: mainly using raincoats, without the habit of using umbrellas. In our survey, when asked "When you are moving on the streets in central HCMC, if it rains, what do you usually do?," 66.7% of people answered "find a place to buy a raincoat to wear, then keep moving." The remaining people did not choose to buy raincoats, but their answers were more or less related to the raincoat, that is: 13.3% of people answered "find shelter from the rain" (this case may include both those who already have a raincoat but don't want to move in the rain) and 20% of people answered "keep moving in the rain" (this will happen if the people moving on the streets already have raincoats on their vehicles or it's raining lightly). In another question, when asked "When you are moving on the streets in central HCMC, if it rains, will you take an umbrella?," 60% of people answered "never," 30% of people answered "occasionally" and 10% of people answered "regularly." Those who choose to use an umbrella solution when moving in the rain must be moving by bicycle, walking or moving by 3-wheeler without a roof at a slow speed. Because if they move by motorbike with an umbrella (even when it is sunny or rainy), it is very entangled, easily causing accidents and collisions with other traffic participants on the road, especially if driving fast. The survey results of these 2 questions show that people give preference to raincoats when moving on the streets in central HCMC when it's raining, while umbrellas are not the right choice for most people. This is also a common feature in the behavior with rain of Vietnamese people. If "the system is a collection of elements interacting with each other and with the environment" (Le Ngoc Hung, 2015:140), then the system of rain induced behavioral culture of people moving on streets in central HCMC is also made up of many factors, in which it is impossible not to mention this use of raincoats. In some areas where many companies, offices or shopping malls such

as the center of District 1, sometimes pedestrians use umbrellas to cover the rain. Sometimes people moving by bus or car can use umbrella to cover the rain to wait for the bus or car. In case of light rain, people can also use whatever they are there to temporarily cover the rain while walking or riding by motorbike (mostly people sitting in the back) such as using hands, hats, coats, newly purchased goods, bags, hand fans, even turning the shirt they are wearing (for men) or using a plastic bag to cover their heads (as many people think it is easier to get sick if the rain gets their head wet). The preference for motorbikes and the demand for convenience and speed in moving in a developed city, along with the inherent flexibility in the character of Vietnamese people have decided to choose the above rain cover when moving on the streets in central HCMC. Among them, raincoats are the most popular and favorite items.

During the rainy season in HCMC (around May to November depending on the year), on people's means of transport (mainly motorbikes) when moving in inner districts usually have at least 1 raincoat. Raincoats have many designs and colors to meet the diverse needs of people, there are 2 main types: 2-flap raincoat and full-body raincoat. 2-flap raincoats are thick, opaque or transparent color, usually monochrome, long, sometimes printed with advertisement or logo on the back (usually raincoats of companies or brands), priced from 30,000 VND. 2-flap raincoats are available in a variety of types such as bat-wing raincoats, raincoats for 1 person and double raincoats, raincoats with visors, raincoats with buttons on both sides, raincoats with transparent plastic areas to not cover the motorbike lights in front, raincoats for children... Wearing 2-flap raincoats on motorbikes for people in HCMC in particular, Vietnamese people in general, is also quite fluent and convenient, perhaps because it has an open structure and Vietnamese people have a long tradition of ao dai (a traditional garment with lower front & back fabric pieces). The rear flap of raincoat will be carefully seated or fixed to the front by motorcyclist. If a raincoat is used by 2 people, the person in the back will cover the rain with the rear flap of raincoat, this also works to fix the raincoat flap to avoid it being too long to get caught in the rear wheel, causing an accident for motorcyclists.

In case someone inadvertently leaves the rear flap of raincoat to fall freely, the surrounding traffic participants can help remind the rider. Ordinary laborers with low economic conditions or who want to buy cheap raincoats will choose full-body polyethene plastic (PE) raincoats with prices from only 5,000 VND to 15,000 VND. This type of raincoat is very light, thin, very small and compact when folded, monochrome or polka dots, transparent, long sleeves, with or without fixed elastic band at the cuff. Its inconvenient point is that it is easy to tear and entangle when riding a motorbike or bicycle, it is impossible to carry a backpack after wearing it because there are no 2 separate flaps, the coverage is not long, so the wearer easily gets wet feet. Among these 2 types, people moving on the streets in central HCMC prefer to choose a thin, full-body and cheap raincoat because it is affordable for everyone, easy to buy anywhere on the road. Therefore, when asked "What kind of raincoat do you usually choose to buy?" Up to 76.7% of people answered "cheap and convenient raincoat,,"20% answered "high quality, expensive raincoat" and a few 3.3% answered "raincoats with famous brands." In addition, when asked

"How much do you usually buy a raincoat?," 46.7% of people answered the price "from 5,000 VND to 15,000 VND," 20% of people answered the price "from 15,000 to 30,000 VND," 33.3% of people answered the price is "more than 30,000 VND." The most chosen answer in the 2 questions above is "cheap and convenient raincoat" and the price "from 5,000 VND to 15,000 VND" is referring to the characteristics of cheap full-body PE raincoats mentioned above. In addition to the 2 main types of raincoats above, there are also full-set raincoats, more expensive over-raincoats and specialized raincoats for specific occupations such as raincoats for military and police.



Figure 1. Left, thin, full-body, cheap raincoat (Binh Tien Raincoat Company, 2021). Center, Two-flap raincoat (Viet Raincoat Company, 2021). Right, a rainwear set (rain suit -including pants and jacket (TopList Joint Stock Company, 2020)

The sale of raincoats on the streets in urban districts in HCMC clearly shows the flexibility in the places of sale, sellers and methods of selling raincoats. From the time it's going to rain until it rains, raincoats will be sold everywhere on the streets (on sidewalks or in indoor spaces) as long as there is a place to hang them for people moving on streets to see. In the question "If it rains while moving on the street in central HCMC, where do you usually buy raincoats?" 83.3% of people answered "buy at any place that sells raincoats by the roadside," 16.7% of people answered "find the nearest store that sells raincoats." Anyone can sell raincoats, usually vendors on the sidewalk, even motorbike repairmen or grocery store owners. When it was just in the time it's going to rain, they quickly displayed raincoats for sale. At each point of selling raincoats on the sidewalk, there is usually a large umbrella or a temporary roof so that buyers can stand to wear raincoats. Raincoats on sale are usually cheap, mainly serving the immediate needs of people moving on the road to respond to rain, and thin full-body PE raincoats are preferred. The survey results of the following 2 questions prove that preference. When asked "What kind of raincoats do you usually buy?" 53.5% of people answered "thin material," 26.7% of people answered "thick material" and 20% of people answered "synthetic material." Or with the question "What kind of raincoat structure do you usually buy?" Then 73.3% of people answered "covering the whole body," 23.3% answered "divide into 2 parts" and 3.3% answered "raincoat set (including pants and shirt separate)." The speed, availability, convenience and cheap price are the advantages of buying and selling raincoats on streets in central HCMC. Those who want to buy high-quality raincoats before going out or want to have a wide selection of raincoats can buy in advance at markets, stores or buy

online on sales websites (such as tiki.vn, shopee.vn, sendo.vn...) and websites of raincoat businesses.

The process of rain can be divided into 4 phases: (1) when it's going to rain, (2) when it starts to rain lightly, (3) when it rains heavily and (4) when the rain stops. Depending on weather conditions, sometimes phase 1, phase 2 or both phases are missing. In phase 1, people moving on streets may still not wear raincoats because it has not rained yet or they hope that even though it shows signs of about to rain, it will not rain. However, they can still prepare raincoats on their vehicle. In phase 2, there are some people wearing, some people have not yet put on raincoats and continue to move in the hope that the rain will not be heavy. In both phase 1 and phase 2, some people will drive quickly to their destination because they think they can avoid the rain. In the question "When moving on the streets in central HCMC, when will you buy a raincoat to wear?" 32.1% of people answered "when it's going to rain," 35.7% of people answered "when there is light rain" and 32.2% of people answered "when it rains heavily." With 32.1% of people buying raincoats to wear since "it's going to rain," that means 67.9% of people don't buy raincoats to wear at this time. With 32.2% of people buying raincoats to wear since "it rains heavily," that means 32.2% of people will not buy raincoats if it doesn't rain heavily. These figures of 67.9% and 32.2% of people (maybe some people have already bought raincoats before moving) partly reflects the situation that a part of people are quite subjective with buying raincoats to wear when moving on the streets in central HCMC even though it is going to rain or has the light rain. However, in phase 3 when the rain is completely heavy, the wearing of raincoats will officially take place for those who have not yet worn raincoats.



Figure 2. Left, People wearing raincoats move on the central HCMC (Cao An Bien, Doc Lap, 2021). Right, People wearing raincoats in traffic jams in the central HCMC (Le Ngoc Thao, 2021).

When asked "If it rains while moving on the street in central HCMC, where do you usually wear a raincoat?" 76.7% of people chose to pull over to the side of the road to put on a raincoat (in which 50% of people answered "park the vehicle in an empty place on the side of the road to put on a raincoat," 26.7% of people answered "park the vehicle at any place on the side of the road to put on a raincoat"), the remaining 23.3% of people answered "find a sheltered place to wear a raincoat." When it rains heavily, the typical scene often seen on the streets in central

HCMC is that all motorcyclists who have not yet worn a raincoat will pull over to the side of the road and simultaneously step down wearing raincoats. It can be seen that heavy rain is the signal to create that uniformity. It is worth noting that under the impact of heavy rain, it seems that everything will be rushed, but people have a high sense of order. Each motorcycle is lined up in a long line like a comb, whoever wore a raincoat quickly ran away to make parking space for others. This is a rare order on streets of HCMC, a type of conditioned collective reflex, which can also be seen as a kind of collective pattern formed from the long-term interaction with the rain of humans in HCMC. "All over the world, since the beginning of human history, it can be shown that peoples have been able to adopt the culture of peoples of another blood" (Ruth Benedict, 1934:10). When there are certain conditions, they can form common types of reactions, adapt to a certain situation of life where they coexist and suffer the same influences. This wearing raincoats in unison or some aspects of rain induced behavioral culture of people moving on streets in central HCMC are mentioned in the sections below are adaptations formed by this rule.

People on the road can observe the weather with the experiences of the community and the individual to predict the possibility of rain to prepare for wearing raincoats. When asked "How do you know the possibility of rain when moving on the streets in central HCMC?" Immediately 76.7% of people answered "selfobservation of the weather and sky to predict the possibility of rain" (the remaining 23.3% of people with other answers will be detailed in the first part of section 4 below). These forecasts may be true or false, but it is worth mentioning that they reflect the human perception that has been drawn up over a long period of time that "human beings exist in the natural environment, develop together with the natural environment" (Tran Quoc Vuong, To Ngoc Thanh, Nguyen Chi Ben, Lam My Dung & Tran Thuy Anh, 2005:26). For example: some people think that if it's going to rain but there is only strong wind or it is still sunny or the sky is pink, there will be no rain; some people think that if the light rain lasts for a long time, it will not stop quickly and will not be able to turn into heavy rain; or if it rains while it's sunny, the rain will stop quickly... Is this way of observing the weather derived from the original agricultural culture of the Vietnamese people, because work in agriculture, it is inevitable that people have the habit of observing nature and predicting the weather themselves? The flexibility in buying and selling raincoats in the analysis above is probably also of this same origin. Even if some people choose to leave their motorbikes at work or a parking space to get home by motorbike taxi, the raincoat is still an indispensable item, they can wear their own raincoats or use the driver's rear raincoat to cover the rain (if the driver wears a 2-flap raincoat). Diversity of vehicles and forms of transportation when it rains (private motorbike, motorbike taxi, bus, cyclo, bicycle, walking) are chosen by people using raincoats when participating in traffic is another expression in rain induced behavioral culture of people moving on streets in central HCMC, contributing to clarifying the flexibility to adapt to the living environment in the rain of people in HCMC.

# The Rain Induced Behavioral Culture of People Moving on Streets in Central HCMC in Choosing Places to Shelter from the Rain

When it rains, people who are moving on the road in central HCMC think about wearing a raincoat or immediately looking for a place to buy a raincoat, then run straight to destinations, however, sometimes they also choose a solution to shelter from the rain. People in HCMC, especially in the evening after work hours, in fact most people start to have free time, but when observing them moving in the rain on the inner city streets, it feels like everyone rush, focus on running away to do something like there is no time to shelter from the rain. When it rains lightly or they predict it won't be heavy, they don't need shelter from the rain. This is clearly seen in the survey results from the question "When it starts to rain lightly while moving on the streets in central HCMC, what will you do?" When asked, 40% of people answered "drive quickly to where you need to go," 30% of people answered "find a place to buy raincoats to wear or wear raincoats that are available right away," 26.7% of people answered "continue to move normally because the rain has not been heavy" and only 3.3% of people answered "find shelter from the rain to wait for the rain to stop." However, when asked "If you encounter heavy rain while moving on the streets in central HCMC, what will you do?," The number of people choosing to find shelter from the rain increased, but still lower than the number of people choosing to wear a raincoat with 26.7% of people answered "find shelter from the rain immediately," 66.7% of people answered "find a place buy a raincoat to wear or wear a raincoat that is available right away" (remaining 6.6% of people answered "drive quickly to where you need to go").

People who are planning to leave somewhere at a time when it's going to rain or there is light rain can prepare a raincoat on the vehicle or wear a raincoat, but if it rains heavily, they usually choose to continue staying there, unless they are reluctant to go, the preferred solution is still to wear raincoat or rent a motorbike taxi or taxi. In the case of having to shelter from the rain, the choice of rain shelter for people moving on streets in central HCMC is also diverse and flexible depending on the actual conditions of circumstances and the needs of each person. People who shelter from the rain are often those who do not have raincoats available but do not want to buy raincoats for many reasons, such as: (1) they feel that it is more convenient and quick to run into a place to shelter from the rain; (2) they don't have enough money to buy raincoats; (3) they are afraid to move in the rain, especially in heavy rain, because it is easy to get wet, the streets are slippery and can be flooded; (4) they are having free time and do not need to move in the rain; (5) their bodies are not well, should not move in the rain; (6) they don't like the cold of the rain; or maybe even (7) they like to watch the street view in the rain. Sometimes it is possible to see a small number of people wearing raincoats but still sheltering from the rain for these reasons, except for reason 2.

Le Ngoc Hung stated that "human is not a biological system that reacts passively to stimuli from the external environment [...] Human is a positive personality system capable of creating society, creating himself and the entire human universe" (2015:140-141). In this way, the creation of raincoats with the wearing of

raincoats and the choice of places to shelter from the rain while moving on the streets of people in central HCMC can be considered as typical expressions of the positive personality of HCMC people in behavior with rain. In the question "If you have to shelter from the rain while moving on the street in central HCMC, where would you choose to stay?," 33.3% of people answered "anywhere covered," 36.7% of people answered "anywhere covered where no owner is," 13.3% answered "anywhere with shelter but deserted" and 16.7% answered "the places where there are other people are also sheltering from the rain." Any place with awnings, roofs, even at shops that are open for sale, if there is an empty space in front, can become a shelter for people moving on streets from the rain. However, many people rarely choose the area in front of private houses with owners staying at home to shelter from the rain out of a sense of politeness. They can take shelter from the rain in shops because those are open spaces, with many people, with lights, to the extent that it is both safe for people to shelter from rain and safe for shop owners. While private houses are smaller, personal and separate spaces, if sheltered from the rain, it is easy to create wariness and bad misunderstandings between homeowners (even neighbors around those houses) and people sheltering from the rain. The tendency to seek shelter from the rain of people moving on streets in central HCMC is also determined by the trend of crowds, places where many people are sheltering from the rain, if there is still space, they are often sheltered by people moving on the streets, perhaps because of the higher safety in these places. Some people also choose food and drink shops to visit to combine drinking or eating and sheltering from the rain. Here they can just eat, rest, go to the toilet, use the phone and free wifi (if available) for entertainment and can avoid the rain, it's important that they have free time. In general, the choice of rain shelter for people moving on streets in central HCMC, although flexible, still ensures basic safety factors (a bright place, the street frontage, there can be many people sheltering from the rain...), there is still space, not a private house, most importantly, a roof.

### Behavioral Culture of People Moving on the Streets in Central HCMC with Consequences During and After the Rain

When rain, sunshine or other natural phenomena are inseparable from human existence, there is always a close relationship between humans and nature, then it can be said that the way people behave with the natural environment to conquer or harmonize, like the behaviors of people moving on the streets in central HCMC with rain, all reflect the behavioral culture of the people there. Rain, especially heavy rain, will cause many disadvantages to people on the streets in central HCMC. When asked "What is the most unsatisfactory thing on the streets of central HCMC when it rains?," 36.7% of people said it was the situation of "being splashed with dirty water by vehicles running around (rainwater mixed with soil, sand, dirt on the road surface)," 30% of people answered "flood situation," 26.7% of people answered "traffic jam," the remaining 6.6% answered that "some people drive recklessly such as speeding, swerving, running through red lights...." Because of such limitations, in the minds of most people on the road, they often do not like the rain, although sometimes they still know it is a natural thing. When asked "How do you feel when you have to move on the streets in central HCMC when it rains?," 76.6% of people did not like it (of which 33.3% of people answered "don't

like it because it was wet, dirty, has to move slowly...," 43.3% of people answered "don't like it but find it normal because the rain is a natural thing"), the remaining 23.4% of people answered "feel normal" (13.4%) or "like it because it's cool" (10%).

Some people, even after the rain has stopped, still wear raincoats for a long time because they are afraid that the rainwater mixes the soil and sand on the road following the rotation of the rear wheels of the vehicles in front, splashing on their clothes and bodies. These stains are left for a long time will be very difficult to wash, and if the clothes are dirty, they cannot attend the events they are going to. This can be seen more clearly when large vehicles such as cars, buses and trucks pass by because their wheels will shoot water at people around more, especially in places where rainwater is puddled or flooded after rain. Each time these vehicles pass, they will create strong water waves that knock down motorbikes around. Some drivers are aware of this, so they slow down when passing those places. Another worrisome problem affecting people's moving is that some roads have been dug or sunk due to poor construction quality, creating large and small holes on the roads. These holes, along with a number of sewers on both sides of the roads that are not properly covered, can easily cause people moving on the roads to fall by collision or cannot be observed in time to avoid them in the flood water during and after rain.

When asked "In your opinion, where do the restrictions when moving on the streets in central HCMC usually occur when it rains?," Up to 60% of people choose "all roads in central HCMC," the remaining 33.3% choose "roads in inner city districts but not the central area of HCMC" and 6.7 % of people choose "roads in the central area of the inner city of HCMC." The restrictions that occur on the streets of the central HCMC during the movement of people in the rain (mentioned above) mostly occur on all roads in the inner city districts of HCMC. The roads in the central area of the inner city of HCMC are considered to have few such limitations, perhaps because this is the center of the city, the infrastructure is more focused on investment, the urban management is strictly carried out and people's awareness when moving is also better. The urban area in HCMC is 140.3 km2, although it accounts for only 6.82% of the total area of the city (2,056.5 km2) (Ministry of Planning and Investment, 2020, section 1, paragraph 2, line 1) but the number of people gathered here to live, study, work and play is very large, only the number of people living here is 7,125,497 people, accounting for 79.23% of the total population in HCMC (8,993,082 people) (Population and Housing Census, 2019, lines 12, 14). Therefore, the number of people moving on the streets is also very crowded. If before, the phenomenon of traffic jams in central HCMC only occurred at off-shift hours, rush hours, but now traffic jams are getting more and more severe, almost any time of the day, the roads are also crowded, easy to jam if there is any problem on the road. Traffic jam can be considered a chronic disease in big cities like HCMC, but traffic jams during the rain, especially heavy rain and flooded roads, are really inconvenient for people moving on the streets. If people suffer the scene of moving the vehicle little by little, getting wet or trying to control the vehicle in flooded water, the difficulty of moving in the rain will increase.

However, in that traffic jam scene, it inadvertently creates a beauty in traffic when it rains for people moving on streets in central HCMC: no one tells anyone but everyone is consciously waiting to move, not causing any difficulties for each other. Of course, it is inevitable that there are a few people who have poor awareness or have an urgent need to go, but if they are in this situation, everyone must try to endure, as long as someone honks the vehicle horn to pass, the people around will all turn to look with displeasure. This is when the tolerance of Vietnamese people is best shown. In addition to traffic jams, flooding during and after the rain is also a frequent phenomenon on some roads in the inner city districts of HCMC, especially when the rain is combined with high tide, it increases the situation of deep and heavy flooding such as on Nguyen Huu Canh street of Binh Thanh District, Co Giang street and Calmette street of District 1, Luong Dinh Cua street of District 2, Doan Van Bo street of District 4, An Duong Vuong street of District 6, Huynh Tan Phat street of District 7... Flooding causes many difficulties and damages for people's moving.



Figure 3. Areas (highlighted in blue) where flooding occurs during rain and high tide in central HCMC (Thuan Tien, 2020).

The acts that violate traffic laws of some people moving on the streets in central HCMC when it rains, such as passing a red light or speeding, not wearing a helmet but only raincoat hat when riding a motorbike or driving while drinking alcohol is not acceptable because they can easily cause accidents involving people around. Particularly for the case of riding a motorbike on the sidewalk when it rains, it should depend on the specific circumstances to assess the level of violation, if the road is small but there is a lot of traffic and it is flooded, a better view may be available. However, people moving on the streets need to be aware that it is illegal behavior and should not promote and consider them as the right thing to do. In the case of the road without traffic jam or flooding, these behaviors will certainly not be acceptable.

### Some Discussion on the Impact of Stakeholders on the Street Behavioral Culture When it Rains by People Moving on the Streets in Central HCMC

Although there are now many popular channels of information on weather for the people such as weather forecast programs on television (VTV, HTV...), weather forecast applications on mobile phones, weather news through newspapers, social networking sites... but mostly with the mentality of not worrying too far and the view that "nang mua là viec cua Troi" (sunshine and rain are God's business), people in central HCMC often directly observe the weather to predict possibility of rain when moving on the streets rather than viewing weather information from those channels before going out on the road. Watching the weather directly will be faster and more convenient for moving on the road. So when asked "How do you know the possibility of rain when moving on the streets in central HCMC?" (mentioned at the end of item 1 of this paper), up to 76.7% of people answered "selfobservation of the weather and sky to predict the possibility of rain," while only 16.7% of people answered "knowing through the weather forecast information on the mass media" and 6.6% of people answered "know only when it really rains." This is a feature that the media, forecasting agencies and weather researchers should pay attention to choose the appropriate method of forecasting rain for people moving on streets.

One suggestion, for example, should be to conduct large-scale surveys on the current situation, the need to see news about rain on media channels and the ability of people moving on streets to trust such information in central HCMC in particular, people in HCMC in general. Thereby, the management stakeholders such as government agencies, newspapers, non-profit organizations... will have the basis to set out development orientations and measures to attract more attention and trust of people moving on the streets in central HCMC for rain forecast programs. Forms of information about rain conditions to people moving on the streets may include sending text messages, notification messages through weather forecast applications, information on television, on social networking sites. All strategies for the development of rain forecast as well as related weather phenomena to serve the convenience of people moving on the streets in central HCMC should be carried out in a step-by-step process (from research, experiment, official operation to studies to restructure later) to avoid wasting money and effort without achieving effective benefits for society. From the beginning, it should be determined that the development of rain forecast for people moving on the streets in central HCMC is a non-profit job, for the purpose of contributing to ensuring social security for people when staying in HCMC. The rain causes restrictions on the movement of people in central HCMC, somewhat restraining their spending, even spending on roadside shops. Therefore, it is necessary to have reasonable development plans so that people can feel secure about moving on the road even in rainy and windy weather, so they have the mind to spend on social consumption segments (shopping, dining, entertainment, using paid services), thereby stimulating the general development of HCMC.

Rain is an inevitable natural phenomenon, people cannot deny it, but people can choose how to live with it, which is the core of people's behavioral culture with rain. This core is formed from the rule that "man is also natural, in man there is

also nature (instinct, innate) and man must always live with nature" (Tran Quoc Vuong, To Ngoc Thanh, Nguyen Chi Ben, Lam My Dung & Tran Thuy Anh, 2005:26). People moving on the streets in countries will have their own way of behavior with rain on the road, some countries like to use umbrellas (like Korea, Japan), some countries like to use raincoats like Vietnam. These behaviors are all determined by the cultural context, social space (directly street space) and all other relevant factors (including infrastructure and superstructure). If the average total rainfall of the whole country in 2019 is 1200mm-3000mm (National Center for Hydro-meteorological Forecasting, 2020:02), the average rainfall of HCMC is 1,979mm. The average number of rainy days per year in HCMC is 159 days (Ministry of Planning and Investment, 2020, item 2, line 4), accounting for nearly half of the total number of days in the year. These figures show the cohesion and important influence of rain in the lives of people in HCMC, it affects and dominates nearly half of their life time in the year. Among the people moving on the streets in central HCMC also have their own ways of behavior with the rain, but regardless of the choice of behavior, the important thing that they need to have is civilized and lawful behaviors when moving in the rain.

In the question "In your opinion, what should be done to prevent the restrictions encountered while moving on the streets in central HCMC when the rain does not occur?," 30% of people answered "every citizen should be conscious of moving on the streets in central HCMC in a more civilized way." Or when being asked "When moving on the streets in central HCMC when it rains, if there is a collision with other vehicles, what will you do?" Then 86.6% of people chose the solution to ignore, do not need to resolve the collision, the remaining 13.4% answered "If causing damage to your vehicle, it will be resolved to the end such as claiming compensation, calling the traffic police, holding responsible." Of those 86.6%, 23.3% of those answered simply "ignore and keep moving" and 63.3% of those answered "If it is a minor collision that does not cause significant damage to your vehicle then will be ignored." This figure of 86.6% shows that the majority of people moving on the streets in central HCMC still value gentle and peaceful behavior when participating in traffic, and do not like the tendency to violence, quarrel or make a big deal, especially during rainy and windy times. This greatly contributes to creating urban beauty, a civilized and healthy lifestyle for the central HCMC in particular, and for the whole of HCMC in general. When asked the reason for that action of "ignoring," 50% of the surveyed people answered "because think they (the people who collide with them) did not do it intentionally, because the rain limits their mobility (such as not seeing the road clearly, slippery roads, roads with many potholes...)," 16.7% of people answered "because of the fear of touching others" and 33.3% of people answered "because it's raining, if you stop to solve the collision with others, there will be negative effects such as getting wet in the rain, wasting time, and possibly causing more traffic jams on the streets." In these answers, we see very clearly 3 main reasons for the act of "ignoring" reflecting the personality of people moving on the streets in central HCMC when it's raining, which is: the fear of touching others, sympathy for each other among people moving on the streets, the fear of making the streets more congested. According to our assessment, these are their positive and good personalities. Although there is still

a personal reason that is the fear of wasting time, fear of getting wet in the rain, but this is a completely convincing reason in the uncomfortable situation from the weather. According to the understanding that "urban is like a living body, in which the roads are the lifeblood for the body parts" (Tran Ngoc Khanh, 2018:56), it is clear that civilized behaviors on the streets in the rain of people in central area will contribute to building an overall good lifestyle in HCMC, aiming for a city worth living, civilized, polite and gratitude. This also takes time to realize extensively and comprehensively, cannot be achieved anytime soon when people on the streets in central HCMC come from many different regions, the diversity of population leads to the diversity in their behavior with rain.

Tran Ngoc Them commented, "urban is characterized by a large number of people [...] In a society where the number of people is too large, people hardly know each other, the foundation to maintain social stability should not be sentiment, morality, but it must be laws, regulations, and rules. The law is decisive factor for the order of urban society" (2013:200). Accordingly, the law will play an important role in shaping the behavior of people when moving on the streets in central HCMC during the rain. However, Ruth Benedict took the opposite view when said that "society is only incidentally and in certain situations regulative, and law is not equivalent to the social order" (1934:182). Combining these 2 perspectives, it can be generalized: the law is one of the factors that shape the human behavioral culture when moving on the streets in central HCMC in rainy weather, in addition, it is also necessary to have the awareness of individuals and the community while on the roads, especially in the context of society in Ho Chi Minh City, there are still many people who do not consciously respect the law. HCMC is in a transitional period with the whole country, so perhaps it is necessary to accept a step-by-step change in all aspects of life, and cannot be reluctant to achieve everything immediately because it is easy to cause negative consequences. When the traditional cultural values influencing the lifestyle of people moving on the streets have a common voice with modern legal values, then it is possible to achieve consistency in their behavioral ways without being forced to pray in the rain induced behavioral cultural context in central HCMC.

In order to make moving in the rain of people in central HCMC more convenient and that behavioral culture in moving becomes beautiful, progressive, in accordance with the policies and laws of the Vietnam government, it is necessary to have impacts from the authorities of inner districts in particular, the city authorities in general. Also in the question (mentioned above) "In your opinion, what should be done to prevent the restrictions encountered while moving on the streets in central HCMC when the rain does not occur?," 20% of people answered "Authorities at all levels in the city need to arrange more police forces to regulate traffic in central HCMC when it rains, especially in places where traffic jams or flooding often occur," 43.3% of people answered "Authorities at all levels in the city need to upgrade and repair the quality of roads in central HCMC" and 6.7% of people answered "all of the above solutions" (including the solution "every citizen should be conscious of moving on the streets in central HCMC in a more civilized way"). Accordingly, authorities at all levels in the city can arrange traffic police, police, militia, and even people to voluntarily live in quarters to go to places and routes that are often crowded with traffic and jams, flooded or prone to accidents in the central city to regulate traffic, penalize drivers who break the law to deter those who are intending to act similarly. If the force is large enough, it can be arranged on all roads, thus supporting people more effectively. On the other hand, it is necessary to quickly research and implement measures to thoroughly combat flooding during and after rain; to soon complete the works of roads, bridges, clean roads and sewers for the convenience and safety of people's moving in rainy weather.

On the side of people on the streets, it is necessary to raise the awareness of participating in traffic on the streets in central HCMC during periods of rain, for example: complying with the general regulations of the law such as not speeding or passing red lights in the rain, not stopping on the crosswalk when red lights, not overloading, not drinking alcohol and always wear a helmet when driving; obey the signals and instructions of the traffic conductors; keep a certain distance from large vehicles to avoid being hit or splashed with dirty rainwater; do not honk the horn when everyone is unable to move in the traffic jam or flooded. At the same time, do not throw rubbish indiscriminately, especially the preference of disposing of rubbish right at the mouth of the sewer should be eliminated to both keep the streets clean and make it easy to drain rainwater on the road. In this respect, as Tran Ngoc Them writes, "to effectively overcome the arbitrary habits, it is necessary to start not with education or building civic consciousness, but from the legal awareness and law enforcement" (2013:201), so in addition to the self-awareness of the people, there is also a need for strict legal regulations. In addition, the city needs to arrange a system of trash bins with reasonable distances on all roads in central city, manage and clean those trash bins so as not to cause bad odors or trash to be dumped on the street when it rains.

The good behavioral culture on the streets when it rains of people moving on the streets in central HCMC can also be expressed in the act of slowing down vehicles when passing through stagnant water or flooded places during and after rain to avoid splashing dirty rainwater or knocking people around. Pedestrians on the sidewalks wearing raincoats or holding umbrellas should pay attention to avoid falling because the sidewalk is slippery, avoid collisions with motorbikes running on the sidewalk because the road is jammed, should not go near the edge of the road for their own safety and to not be contaminated with rainwater from passing vehicles, pay attention to the height and low of the umbrellas when moving to avoid collision with other pedestrians or objects on the sidewalk. A recent situation that has also caused some loss of life and property is the falling of trees on the roads. When it rains, especially heavy rain with strong winds or under the influence of storms, people should move slowly or seek shelter from the rain. If anyone has not been on the streets, should stay where they are to avoid the trees on both sides of the road or on the median lines falling, being broken into the body. If find that there is an accident on the road during the rain, people can join those around to give first aid or assist in calling an ambulance as much as they can, however, it is necessary to pay attention to self-preservation of personal property in this case, and take care to avoid getting a fever from standing under the rain for a long time.

In order to ensure that cultural achievements and social progress in large cities like HCMC can be continued to be maintained and developed, it requires cooperation from all stakeholders in process of living in HCMC. This cooperation must take place simultaneously in all aspects of the life of HCMC, which of course includes the behavioral culture with weather, such as rain, of people moving on the streets in central HCMC in particular, the whole city in general. Therefore, although knowing that the authorities at all levels of HCMC are responsible for finding enforcement solutions to the remaining restrictions on the streets when it rains in the central city, but the city still needs support from the people in building the civilized lifestyle, the conscious of complying with the law while on the streets. The positive traditional cultural characteristics of Vietnamese people such as the spirit of mutual affection, patience, tolerance... need to be promoted and transformed from within the spirit into external actions of every people on the streets when participating in traffic during periods of rain in central HCMC for general development of social life in HCMC.

### Conclusion

The degree of rain from small to large, from a state when it's going to rain until it rains and the consequences after the rain all affect the behaviors of people moving on the streets in central HCMC. People here have been behaving with rain along with the surrounding environment in the rain very flexibly, diverse in aspects in order to best adapt to the living environment in the rain. In the civilized and modern context of urban districts in big city like HCMC, there is still the appearance of behavioral culture bearing the spirit of agricultural original people. However, it is not possible to attribute all methods of behavior with rain by people moving on the streets in central HCMC to this agricultural original culture, as it would be contrary to progressiveism. Moreover, the hurried and pragmatic industrial lifestyle, along with the urban civilization of the current market era, increasingly affects the behavior of people on the streets in central HCMC, making flexibility in their behavior with rain is increasingly evident and diverse. In such cultural context that both traditional and modern, their behavioral culture with rain should be seen on the basis of having originated from the agricultural lifestyle of the Vietnamese people and being developed and strengthened under the influence of the modern environment in HCMC.

People living in the same country in the way of behavior with rain, in addition to common characteristics, still have specific characteristics that are determined by the socio-cultural environment in which they live, this even happens in different areas of the same city. The rain induced behavioral culture of people moving on the streets in HCMC will be more clearly identified when observed in the inner city districts of the city. Although it has only been 45 years since HCMC was of-ficially named, but the rain induced behavioral culture of people moving on the streets in central HCMC is absolutely worthy of study for the following reasons: (1) HCMC is the most populous city in Vietnam, in which the central city is densely

populated, people moving on the streets here come from many different places, so their behavioral culture with rain also diverse, both old and new, is set on the common basis of the street scene here. (2) All phenomena, whether the smallest or the shortest in life, but having a certain influence and impact on human life are worth studying, let alone here the rain has an significant influence and impact on the daily life of people in HCMC. (3) Studying the relationship and behavioral ways between people on the streets and the rain in areas in HCMC such as the central area will help to better identify the culture of people in HCMC, contribute to the planning and implementation of policies for the development of living environment in HCMC.

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