

# Tools and Interpersonal Communication

## Sociopetal vs.Sociofugal

Shoji EKUAN

Nihon University 4—21 Nakatomiminami, Tokorozawa-shi, Saitama-ken, JAPAN

s-ekuan@ta2.so-net.ne.jp

**Abstract:** In exploring the nature of tools as they affect people's communication process, it is assumed that there are two kinds of effect which tools could have, the one being 'sociopetal' and the other 'sociofugal'. The former refers to the effect of tools that pull people together thus encouraging face to face communication, while the latter is the effect that puts them apart, independent or isolated. In this discussion, the increase of personal use of tools due to their intrinsic nature and the advent of affluent society world-wide are assumed to be independent variable as over against the change of communication process as dependent variable.

**Keywords:** sociopetal, sociofugal, personal use of tools, mobile phone

### Purpose

The purpose of this study is to explore the effects of tools (products of everyday use) as they affect people's interpersonal communication. The underlying hypothesis is that as long as the tools are scarce commodities and small in number, they tend to become the media that bind people together through the shared use of them. On the contrary, as the tools increase in number and the private use of them by individuals becomes ordinary, tools often become media that put people apart or separated. The alienation of this sort has been and is taking place at individuals' homes, neighborhoods and workplaces as well. The private use of tools coupled with the development of high technology and the advent of affluent society has led to this change of interpersonal relationship. The evolution of communication tools, mobile phone in particular, are most relevant in this situation. Prior to further discussion of this theme, let me describe the intrinsic nature of tools first.

## 1. The Nature of Tools

Now that sixty years have passed since the end of World War II, people in the so-called advanced societies have become so affluent that they are even struggling with how not to eat too much. Things like this must have never happened throughout human history

Despite the seeming affluence, however, there are many serious problems in these societies caused by excessive amount of tools. Space in and outside the homes are flooded with, and eroded by industrial products scattered all over, a stifling situation where humans are pushed aside and tools predominate. Situation like this has been brought about by the fact that we have been constantly striving to achieve convenient life to the best of our efforts. Convenient life thus realized is supported by a myriad of tools which are certainly responsible for the whole mess. Here the nature of tools is relevant. First, tool is a strengthened extension of man's organ. For example, pen, binocular, hearing aid, car and computer are extensions of finger, eye, ears, legs, and brain, respectively. This is a primary explanation why tools gain their utmost convenience when used exclusively by individuals. The secondly, tools are characterized by their movability, a fact that man can bring the tools close to him and handle them freely. Things that were formerly fixed and immovable could be made movable, thus becoming tools, a salient trend that has taken place over the past several decades. People do not dare to go to the place where tools exist as fixed ones, but carry and even wear them when they are movable. Owning and using the tools together with other people due to the fact that they are fixed or scarce in number are just a transient stage, eventually reaching to the fixation, the personal ownership and use of tools. Everything from stationary to computer had to be personally used for the maximization of its use. Thus, we might be able to say that theoretically, the number of tools that exist in society will be necessarily heading for the same number of persons who live in it.

## 2. From Family Use to Personal Use

Recently, the evidence that the personal ownership and use of tools have been accelerated is found everywhere. Radio and television that used to belong to a household and were therefore listened and watched by all of the

family members have been transformed to portable radio, down-sized TV and even mobile-phone with TV screen. A fixed phones that used to be shared by all of the family members is now split into a number of mobile phones, each of which is used by a person exclusively. The same is true of bicycles and cars. Families used to own only one of them despite their desire to have more, but now, they often own two or three of them. Personal computers are literally becoming personal to the extent that some households have two to three of them. It is conceivable that popularization of private rooms has something to do with the phenomenon as an underlying cause. At any rate, utmost value or convenience of tools can be derived from its private use by individuals, a fact that has consequently led to a flood of tools around us.(1)

### 3. From Sociopetal to Sociofugal

In former days, sharing tools with others used to be a rule. This is especially true of the era before 1950s or 1960s in the case of Japan when rapid economic growth was taking place. In those days, for example, people used to sit down around heating equipments such as HIBACHI and KOTATSU, and chat each other. Sharing is true not only of the use of those immovable equipments, but also of the undivided Japanese rooms with TATAMI mats which are different from those of Western type where space is segmented by chairs and therefore highly individualistic in nature. Equipments, as immovables, in contrast to movable tools, play a 'sociopetal' role, a centralizing function to put people together, thus encouraging face to face communication among them.(fig.1) Shared use of fixed equipments such as fireplace contributed to the cohesiveness of family as a primary social organization, an essential part of life-style of by-gone age.

On the other hand, with the coming of affluent society, many of formerly fixed equipments were made movable and became tools, and came to be mass-produced to serve individual needs, thus highlighting the individual life over against group life whether it be family or neighborhood life. Mass produced tools began to play 'sociofugal' role by decentralizing people.(2) We may be able to say that one to one correspondence between man and tool was latent in technologically less developed society, but was made manifest in high-tech affluent society. (fig.2) Replacing well with running water led to the disappearance of neighborhood community (housewives used to enjoy chatting around the well) and the emergence of city life where neighbors do

not know each other. Pet bottle, a new way of drinking water is truly a symbol of nomadic life style today. (3)

## From Intra- Family Communication to Its Discommunication

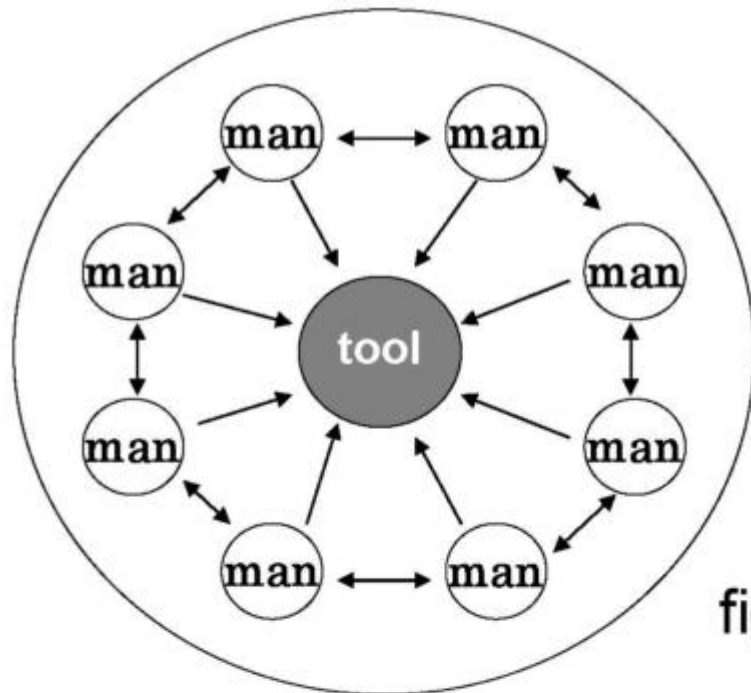


fig.1

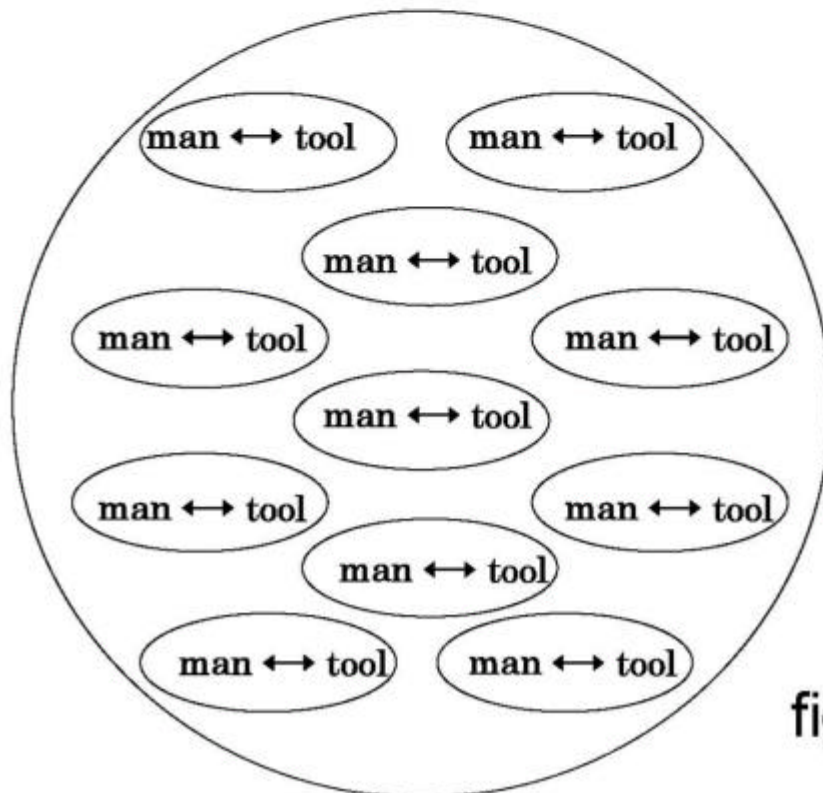


fig.2

Thus, private use of tools prompted by convenience-oriented value has come to spread 'sociofugal' effects everywhere. Individualization of tools ( in terms of both ownership and use) swiftly proceeded during 1970s, when the so-called 'rajikase' (radio-cum-cassette recorder) made their appearance. Because of its portability, people came to enjoy music wherever they go both indoors and outdoors. Individualization of tools reached its symbolic peak with the appearance of 'Walkman', a headphone stereo, which people wore rather than carried. Since then, a variety of down -sized, portable tools became the mainstream of contemporary consumer culture.

Tools have continued to evolve towards further personalization, the apex of which is mobile phone.

#### 4. The Personal World of Mobile Phones

Typical tool that has disrupted social groups such as family and neighborhood is mobile (cell) phone. In former days when the only telephones that existed were fixed ones, somebody who picked up the phone used to pass the handset on to someone who was called. Parents could know who called their daughters or sons and find out or at least guess what company their kids were keeping. But today, this is no longer possible. Parents cannot even know the fact that someone called their kids. In addition, it seems that even parents are regarded as ill-mannered if they happen to pick up their kids' beeping phones. Furthermore, if someone other than the one who was called has happened to pick up the phone, he or she is supposed to make an excuse for it. Present author once asked students attending my class whether or not someone in the family other than the one who was called should pick the phone. All of them except one student answered in the negative. Mobile phones are truly an extension of one's ear and mouth, a personal tool in the strict sense of the term.<sup>(4)</sup> External society is directly linked with individuals not mediated by anybody in the family.

Therefore, kids for example, could remain exposed to potential dangers and undefended. For the kids, mobile phone is, in a sense, a double-edged sword.

#### 5. Two Step Flow of Communication

There is a well-known theory named 'The Two Step-Flow of Communication' proposed by E.Katz and P.F. Lazarsfeld. Against the popular belief that informations as released by journalism and radio should influence

individuals' decision-making, they insisted that there were primary groups (mainly family and peer group) as intermediate variables between mass-media and individuals. According to the theory, it is these intermediate variables which influence the individuals in their subsequent behavior. (5) This theory struck a big blow to the conventional idea that there was nothing between omnipresent media on one hand and the atomized, passive individuals on the other who simply accepted information provided by the former. The case study conducted by Katz and Lazarsfeld in their research was intriguing. The study showed that those kids who listened to the radio alone mimicked exactly what they heard, but those who interacted among themselves while listening did not follow the content of the program exactly, but instead, created a new way of playing. Pointing out the importance of primary groups as they affect individuals' behavior was a part and parcel of the theory. Now, for the most of the families, television as a tool is more or less the center of family gathering. It is through the television that a flood of information thus provided are digested and interpreted by the family members, in the process of which one person, depending on the topics concerned, is supposed to play a significant role as an opinion leader in influencing the interpretation of the program contents for the rest of the family. If the content is concerned with politics and economy, father is likely to be an influential, but as for the content of entertainment and sports, others may be the ones. At any rate, mass-communication information is filtered down to individuals through intra-familial interactions and is likely to result in certain interpretation which is shared by them all.

However, what happens if everyone of the family should have his or her own TV set and watch different programs ? Then, it is likely that TV set loses its centralizing sociopetal function and play rather sociofugal one through its multiple existence within the family. Furthermore, personal computer with TV function added which is now widely available could certainly weaken the TV's sociopetal function of getting family member together in a living room. The world of tools has been changing rapidly both quantitatively and qualitatively thus leading to the new pattern of interpersonal communication and social relation as a consequence.

# From Intra-Office Communication to Its Discommunication

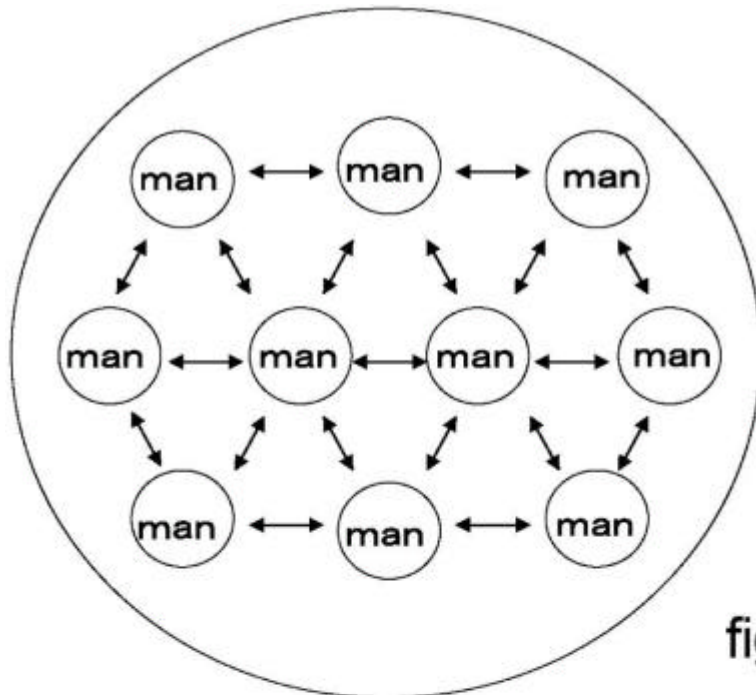


fig.3

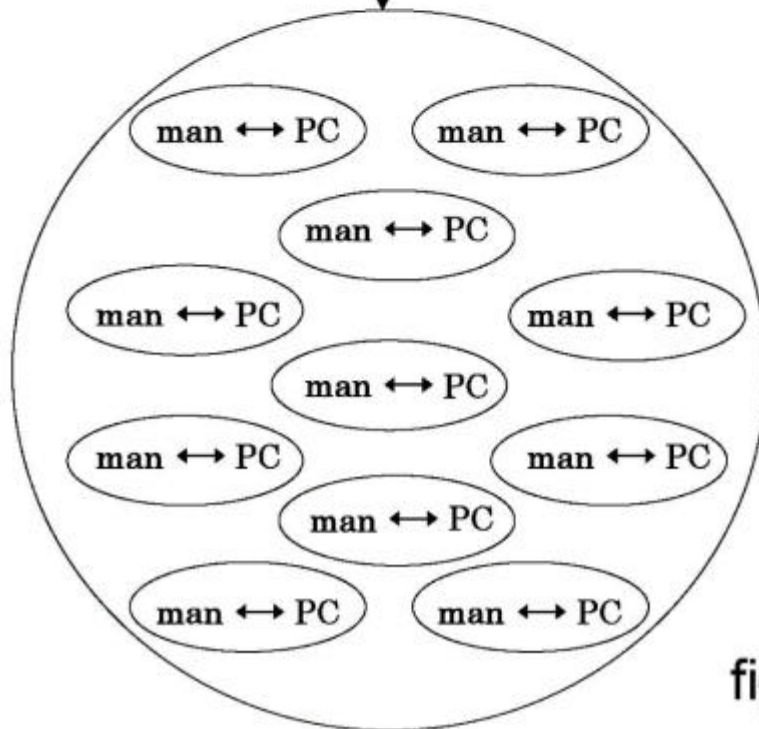


fig.4

## 6. Metamorphosis of Workplace (Office)

The fact that personal computers have been getting so popular that everybody has a computer for his or her own exclusive use has changed the way of intra-office communication tremendously. In conventional Japanese office where office workers share space with no partitions whatsoever, constant communication and cooperation among workers used to take place. Thanks to the open space and concomitant free-wheeling communication that lead to mutual help, Japanese office could achieve higher level of efficiency and productivity. (fig.3) Workplace of this nature, however, has been replaced by the aggregate of man-machine sets composing personal spaces. (fig.4) Physical partitions as high as their American counterparts certainly do not exist. But still, people often hesitate to talk to their colleagues who are concentrating on tapping keyboard. Hence the invisible partitions separating workers everywhere with personal computers playing sociofugal role. An industrial designer once said to the author that designers used to discuss by showing pinned-up idea-sketches on the wall, but this does not happen any longer. Today, everything takes place within a confined space of monitor, and it is rather difficult for the colleagues to peep into and participate in the process of his or her design practice, if not possible. (6) Working in solitude is in, and thinking and doing together is out ! Discussions take place after the work is finished, but not in the work process. It seems that office workers have become a kind of computer nerd.

## 7. Again Towards 'Sociopetal'

Then, with the personal use of tools to the extreme extent, are the solitary or isolated workers getting increased ? Probably not. I suppose that gregariousness of humans does exist. If the wants and needs of individuals' direct contact are not met, the sense of dissatisfaction would have to be compensated somewhere. The fact the movie theaters, sports facilities such as soccer and baseball stadiums are now thriving and attracting so many people seems to suggest that just watching video and sports program through TV is not enough for them. These two different ways of enjoying entertainment and sports are not zero-sum game excluding each other, but the relation of mutual reinforcement. As the need for personal space increases, so does the wants for common space. Now that sociofugal tools are widespread and explicit, the wants and needs for face to face communication



must necessarily increase. They may be latent, but identifying these needs and providing the chances for the needs to be met and giving forms to them is what design now should do.

Things that play sociopetal role are not confined to heating and lighting equipments of by-gone ages. Many of today's play things for kids are intended to facilitate communications among them. Jungle gym, playground slide, swing and trampoline are all communication tools putting kids together. Design for the equipments that facilitate the same communications among the elderly are also needed, now that they tend to be isolated from each other everywhere in the world.

From 'portable' to 'pocketable' to 'wearable', catchphrases that emphasize the personal use of tools and their convenience are abundant. Meanwhile, the fixed and immovable artifacts must be so designed as to enhance their sociopetal function, thus leading to the activation of communications among people who use them. The present author believes that the making of things with their sociopetal function in mind should be promoted especially in the field of public design.

#### Epilogue : the Role of Design

The popularization of mobile phones is remarkable. It seems that almost everybody carries them with him or her. Looking back at the electric or electronic products so far produced, many of them (except those that are used on the premise of common use like refrigerator or gas-range) have evolved towards their personal use, the end product of which are utmost conveniences, crowded space, environmental problems and the decline of face to face communication we have discussed in this paper. The tendency towards personal use of tools is most prominent in affluent society. In contrast, tools ,despite their movability, are shared as in the case of African society where, a report says, even mobile phone is rented on time-base. In Japan, a long time ago, neighbors used to lend and borrow the tools frequently among themselves, thus furthering neighboring activities. In this sense, we may be able to say that it is in the culture of poverty that tools play sociopetal role, while playing sociofugal one in the affluent society. But the situation of one tool per person, will be going to be realized, sooner or later in the future world-wide. It must be by socio-spatial design that the disruption caused by the resultant sociofugal forces could be mended and

new form of interactions among people be created.(7)

## Notes

1. The following data concerning only a few of numerous tools seem to support the assumption of this paper that a tool is best used on personal basis. The data were quoted from the report published in 2006, March 31 by the Statistics Bureau of the Ministry of General Affairs., Tokyo, Japan
  - a. As of the year 2000, the percentage of household that owned one car was 45.6%, but decreased to 43.4% in 2005. On the other hand, the percentage of households that owned two cars increased by 5.8% to 30% of all households. Meanwhile, households owning three cars were 13%, an increase of seven percent during the time-span. Consequently, households owning more than two cars accounted for about 45% of total households, each with 2.49 people on average.
  - b. As for personal computer, a household has one PC on average, but increased to 1.8 for high income bracket as of the year 2005
  - c. As for mobile phone, it may be reasonable to say that it has already reached the saturation level for the high-schoolers and up.
2. 'Sociopetal' and 'Sociofugal' were originally coined by H. Osmond, a psychologist, as concepts to express the quality of space. According to him, 'room that provide opportunities for eye contact among people within conversation distance have been called 'sociopetal space', the antonym of which is a 'sociofugal arrangement' which discourages unwanted conversation through seating that makes eye contact difficult for people who are within conversation distance, by facing away from each other'(Eric Sundstrom, *Work Places*, Cambridge University Press, 1986, p.272). These two concepts are employed in this study to describe the effects of man-made things as they affect the way people interact each other.
3. A classic example of modern technological products as they affect interpersonal relations within a family was described as the following:

'My families feel that an automobile is justified as an agency holding family group together, "I never feel as close to my family as when we are all together in the car," said one business class mother, and one or two spoke of giving up Country Club membership or other recreations to get a car for this reason· · · ·

But this centralizing tendency of the automobile may be only a passing phase; sets in the other direction are almost equally prominent. "Our daughters(eighteen and fifteen)don't use our car much because they are always

with somebody else in their car when we go out motoring”, lamented one business class mother . . . . . (*Middle Town - A Study of American Culture* ,by Robert S.Lynd & Helen Merrell Lynd, A Harvest HBJ Book Javanovich, New York and London,1929, p.257)

4. British *The Economist* Technology Quarterly (March 12<sup>th</sup> 2005, p12) writes as the followings:  
'Mobile phones are a uniquely personal form of technology, thanks in large part to their mobility. When you leave the house, you probably take your keys, your wallet and your phone. Laptop computers are carried by far fewer people, and do not have the same personal associations. Mobile phones provide scope for self-expression, through the choice of ringstone and screen wallpaper.'
- 5 . Personal Influence - The Part Played by People in the Flow of Mass Communication, by Elihu Katz and Paul F. Lazarsfeld, A Free Press Paperback, 1955 p32~p42
- 6 . This is what an industrial designer told me about designer's changing work style.
- 7 . Designing for an apparatus or a group of tools that creates face to face communication or 'visual togetherness' among people, by providing entertainment or game which they could enjoy together is necessary indeed. Digital or non-digital, such un apparatus set up in the park, for example, is likely to trigger unexpected communications among those who happen to be there.. 'Interactive Cube' designed by IDEO;BCA (BusinessWeek July 5 2004, p65)may suggests a hint for the design conception of this kind.

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