Concluding Remarks

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We can consider our theme to be "survival and fulfillment," but we also have to deal with the four "Cs": change, complexity, crisis, and creativity. First the change. Let us not forget that we started the meeting with an amazing analysis of how it is only in the last few decades that there has been a transformation in the whole way in which we produce, manufacture, distribute, retail, and indeed eat our food. If we are looking to the future we have to have this perspective in mind. It is not simply a question of food production. We have learned from Dr. Hormann about the way technological developments are accelerating. We have also learned about food composition from Dr. Walker and the role of government restriction and analysis because of a concern for toxicology and food safety. Simultaneously we are thinking about nutritional issues in the next century: Dr. Olson has told us that the vitamins were only discovered in evolutionary terms a few microseconds ago when set in the time frame specified by Sir Kenneth Blaxter. So we are reviewing a topic with changes cascading in on us and with new issues appearing at a dizzying rate.

If we assess the complexity of the problems, the complexity of the toxicological criteria now needed for the development of new food ingredients is appalling. I produced some fancy new theories that also emphasize the complexity of nutrition. I was dismayed to learn from Dr. Schiffman the problem of a fifth of our population having to cope with changes in their sense of taste: there is an amazing range of food and drug interactions with doctors prescribing ever more drugs with effects on the perception of taste, so our understanding of such a simple straightforward process as taste now has to take on board a tremendous amount of new research. If we want to develop new products we have discovered from Dr. Hulse that we could choose from thousands of different plants and a whole range of different varieties. And if we seek to establish simple rules for food technologists then Dr. Pinot has told us that we had better be careful because although we think that we understand the hundred or so technologies currently available there is a new wave of innovation on the horizon.

These complexities all exist in what I would term essentially an affluent society where we no longer have a problem of survival. We are trying to cope with the problem of fulfillment, i.e., with issues either of pleasure or of understanding oneself and one another. We know that we remain confused by the complexities of such
ordinary conditions as diabetes and we have learned from Dr. Stanley how difficult this is. We have also heard from Dr. Drewnowski that if we take a global overview we really ought to be changing our diet, but all this is really very confusing.

With confusion has come crisis. Dr. Fischler has a very important message for us, i.e., that the normal constraints and checks in an affluent society are now disintegrating so that the ordinary person is having to cope with a huge input of information with which it is very difficult to cope. Indeed I was struck as the conference went on by a novel development—"the loneliness of the consumer." Mrs MacNulty told us that this feature may be one of the precipitating factors that is leading to a growing number of "trendsetters" who were described as "inward directed." How are we then to cope with the vast array of inputs? If we are going to cope, then Dr. Richardson told us that the messages coming from industry will have to be simplified. Dr. Ashwell is a crisis manager trying to replace some of grannie's dictums by having the media produce the correct message. But in all this crisis of understanding Dr. Harper reminds us that we must recognize the problem of having myth and magic as part of our everyday culture in every society that we look at. By last night I was becoming extremely depressed until I remembered that there is Nirvana in one small part of the globe! There is the wonderful Mediterranean area where, as Dr. Buzina set out, we have a gloriously varied diet and culture. But even here changes are occurring, with meat production and consumption rising and wine consumption often on the decrease.

Now to creativity: I would suggest that we do have opportunities to be creative. Dr. Georgala has emphasized the need to be creative, but this depends on society deciding on a public policy basis to fund and develop the research base in food and nutrition upon which our future depends. That is an intrinsic, fundamental requirement in societal terms to allow our creativity to be applied to society's needs. That creativity will have to be integrated, as Dr. Horisberger noted, from the micro to the macro level and from the overall physiological level of the individual through to the echelons of society. So once more we return to the theme of Drs. Hulse and Finot: there are many different opportunities.

Finally, we have to recognize that if we in the West are capable of dealing with our needs for fulfillment by funding our creative capacity and coping with the fragmentation of our society, Dr. Kumar reminded us that as we look to the decades ahead we may have to discard our concentration on fulfillment and think once more about survival. I suppose one can take a cynical view that North America and northern Europe are going to continue with their own selfish ways. Perhaps they will only be helped when Central America colonizes the United States and when the British are finally taken over by the Continentals. At the moment we know that it is Africa that is neglected as eastern Europe demands ever greater assets from the West. And so my major concern is that we are currently preoccupied with fulfillment but when we look to the future Sir Kenneth Blaxter's predictions are likely to come true and survival will be the issue. Is it possible that we have sufficient planning and creative science-based developments to allow us to cope not only with the demand for fulfilling our current societies' needs in the Western world but also with those of survival in the Third World?