group over a finite field is an excellent example of a Sylow subgroup. It is this sort of blend of specific and general which seems to make the best mathematics. An example without a theory to understand it is just as dry and uninteresting as an abstract theorem with no illustrative example to bring it to life.

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Homogeneous Banach algebras, by Hwai-Chiuan Wang, Lecture Notes in Pure and Applied Mathematics, Volume 29, Marcel Dekker, Inc., New York and Basel, 1977, vii + 204 pp., $19.75.

Since the appearance of Gelfand's work on commutative Banach algebras [6] the ideas of that subject have come to be an integral part of many areas of analysis. Nowhere is this more so than in harmonic analysis, where a significant portion of the research of the past thirty years rests upon ideas and questions inspired by Gelfand's work.

One of the first fruits of Gelfand's theory was a re-examination of the foundations of harmonic analysis on locally compact Abelian (LCA) groups G; the fundamental links between the algebra $L^1(G)$, its representations and the characters of G, Bochner's theorem on positive-definite functions, the inversion theorem for Fourier transforms, and so on, were discovered, or looked at afresh. (See the first two chapters of Rudin's well-known book [13] for an explanation of these matters.)

More significant and exciting was the fact that questions of an algebraic kind began to be asked in the domain of harmonic analysis. For instance, what do the closed ideals of the convolution algebra $L^1(G)$ look like? What are the closed subalgebras of $L^1(G)$? What is the structure of the maximal ideal space of the convolution algebra $M(G)$, of all regular Borel measures on G? What are the functions that "operate" on the space of Fourier transforms of this or that algebra? Around questions such as these, rich subcultures of harmonic analysis have grown up, and continue to flourish today.

It was natural that, as questions of the kind indicated above were being asked about $L^1(G)$ and $M(G)$, the same, or related, questions should be asked about various other algebras of functions or measures. (So, for instance, the subject of function algebras, with rich links to both harmonic analysis and function theory, grew up.)

In this spirit, Reiter introduced in [8] the notion of a Segal algebra. By definition, a *Segal algebra* on G is a Banach subalgebra of $L^1(G)$ such that

(i) A is dense in $L^1(G)$;

(ii) $\|f\|_1 \leqslant \|f\|_A$ for all f in A;

(iii) A is translation-invariant;

(iv) the operation of translation τ_a: $\tau_a f(x) = f(x - a)$ is, for every a, an isometry on A;

(v) the mapping $a \mapsto \tau_a f$ is continuous from G into A, for each f in A.

For example, $L^1 \cap C_0(G)$, $L^1 \cap L^p(G)$, $A^p(G) = \{f \in L^1(G): \hat{f} \in L^p\}$, $1 \leqslant p < \infty$ ($\hat{f}$ denoting the Fourier transform of f) are, with their natural